Martin O'Toole

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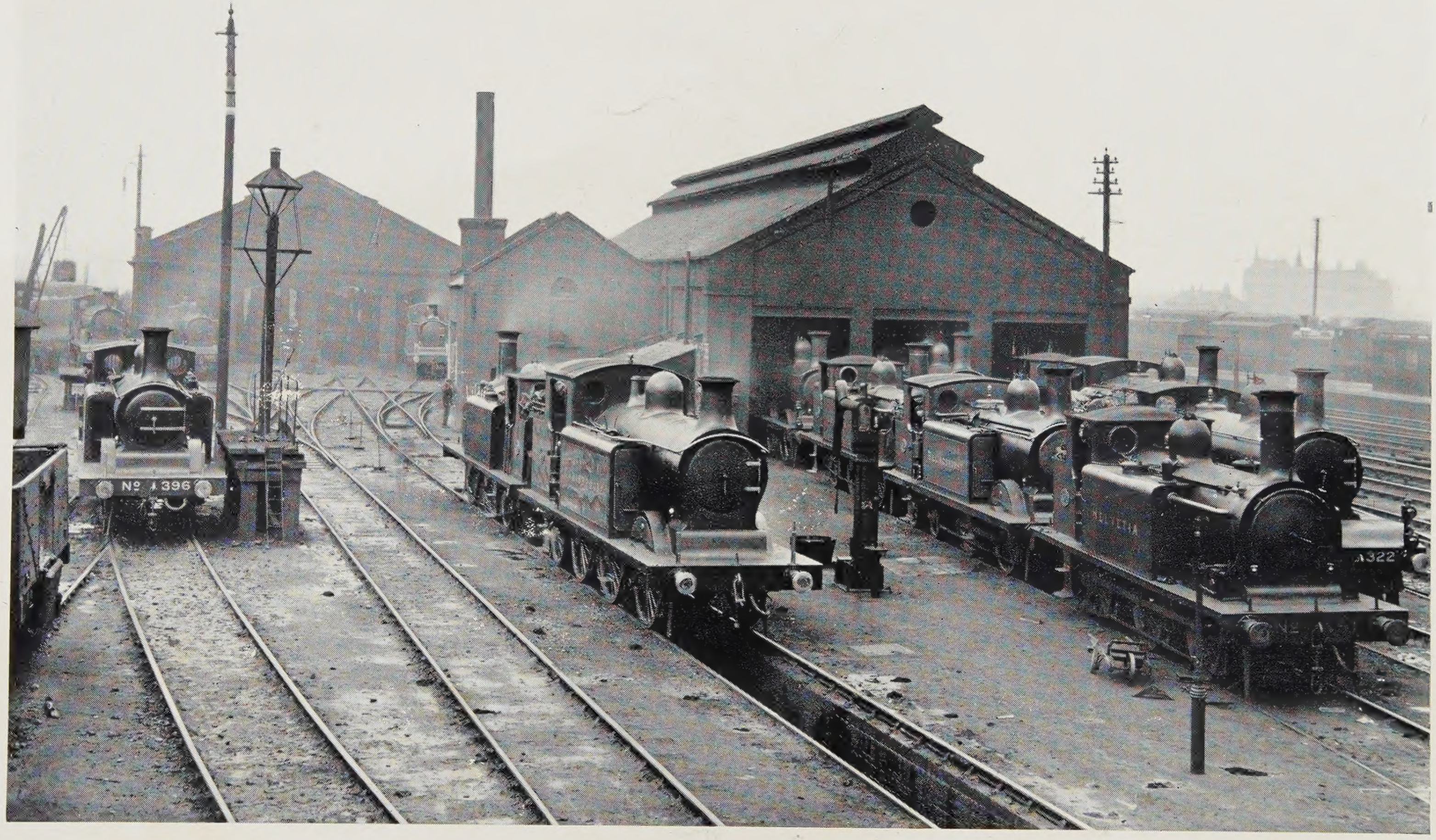
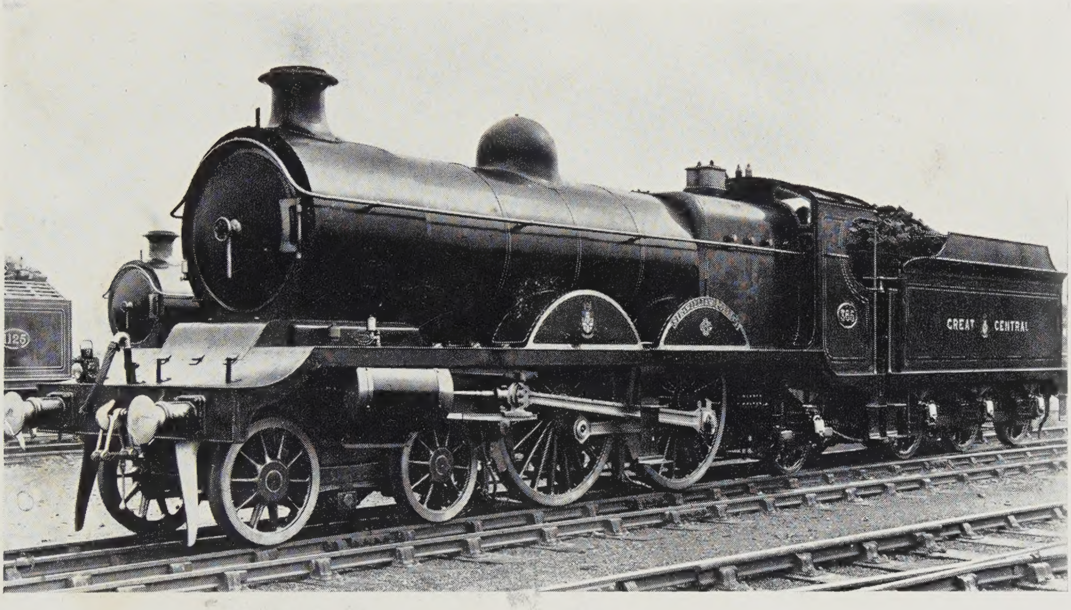


New Cross, London, Brighton & South Coast Railway, at the turn of the century. In foreground, left to right, are Class 'D3' No. 396, *Clayton*, built in 1896; an 'E1' and an 'E5'; on the fourth track are a 'C2', a 'D1', a 'D3' (No. 373, *Billingshurst*) and an 'E1' (No. 151, *Helvetia*, built in 1880). Beyond the last-named is 'B2' No. 322, *G. P. Bidder*, built in 1896. The scene is characteristic of the larger Brighton line locomotive depots between 1896 and 1906.

BRITISH TRAINS OF YESTERYEAR

A pictorial recollection of the pre-1923 railway scene



Held by many to have been the most beautiful locomotives of their day, J. G. Robinson's Atlantics on the Great Central Railway had the lines of an English thoroughbred. Most were simple-expansion engines, but this, *Sir William Pollitt*, was one of four Smith compounds.

Edited by

C. HAMILTON ELLIS

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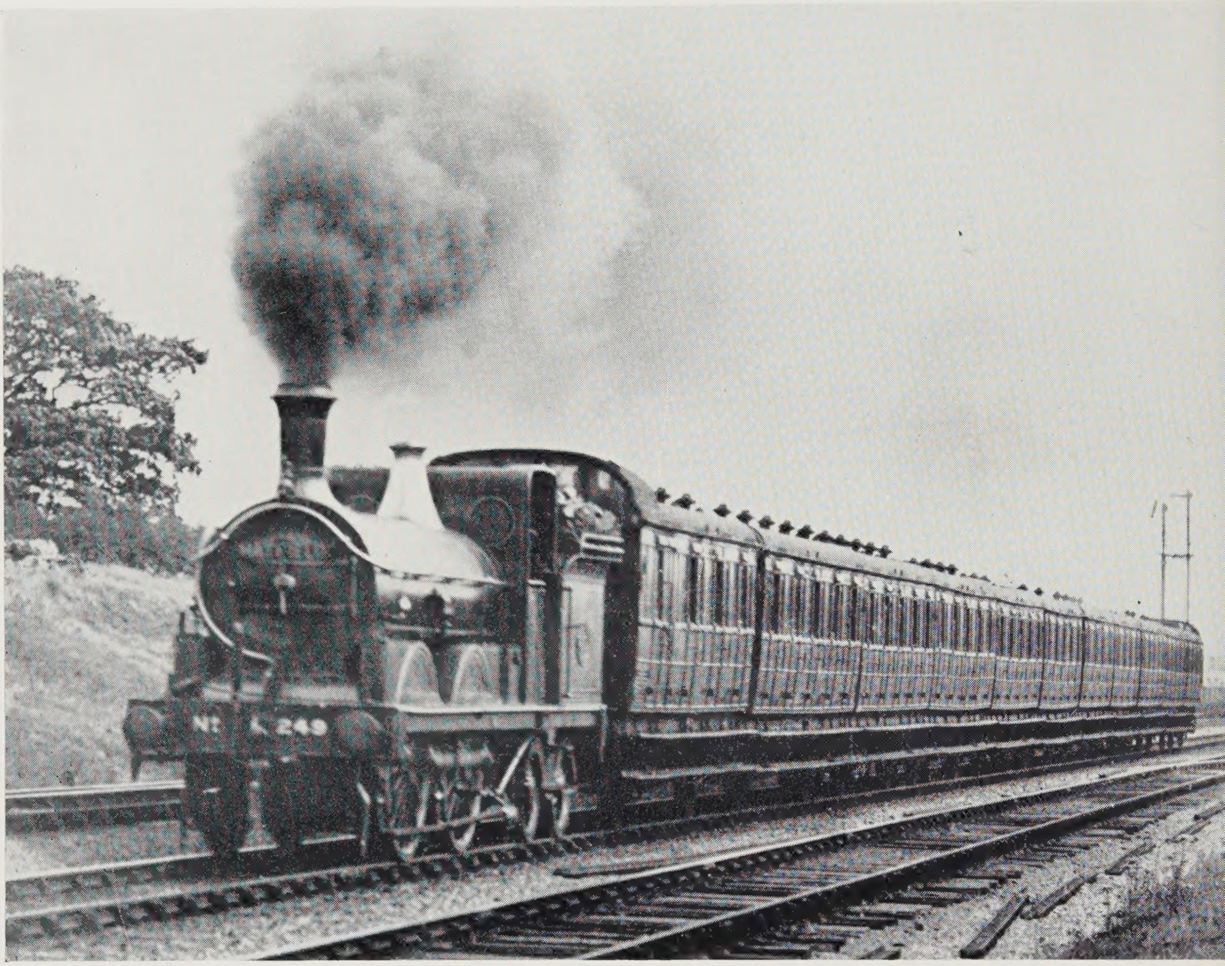


A down Great Northern London suburban train for Hatfield, with typical rake of eleven four-wheeled coaches, headed by 0-4-4 well-tank No. 249.

[*C. Laundy*

The Trains that Passed

Every now and then one gets a particular sort of shock, and that is when a man whose children are growing up says, half-fervently and half-incredulously: 'And do you really remember *blue engines* on the *Caledonian*?'

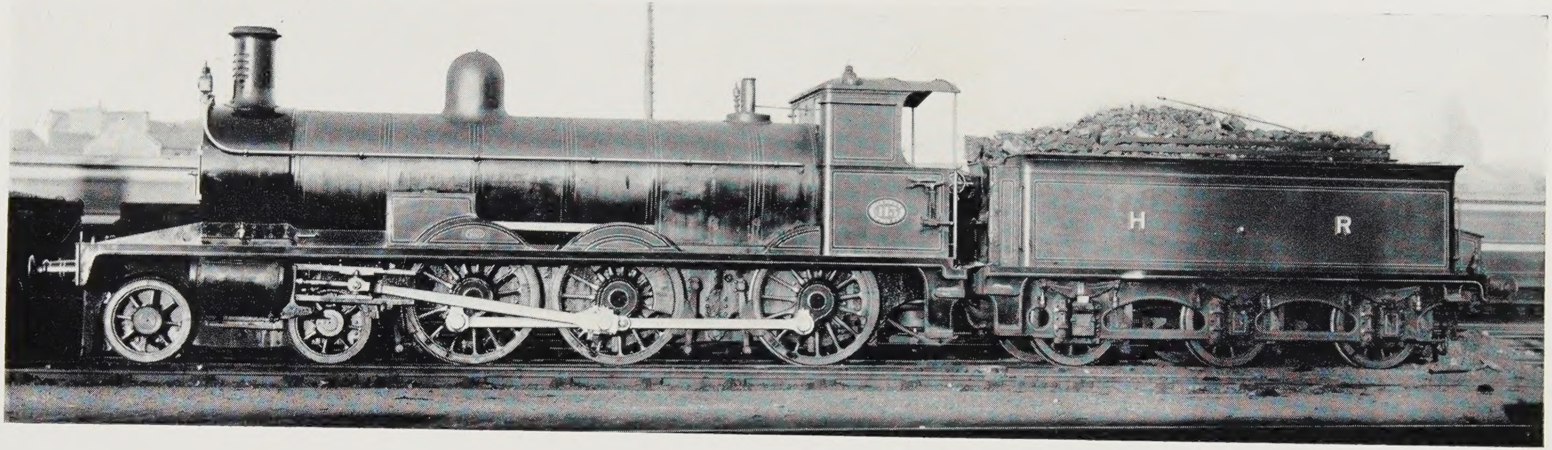
There are all sorts of questions like that. There is the remark that one may take as a compliment or as merely silly, according to the temper one is in: 'You *can't* remember the Hull & Barnsley!' And because we all had our loyalties, which we still cherish somewhere in the back of the cerebral library, this sort of thing can be embarrassing in mixed company: 'Did you *really* think the London & North Western was the Premier Line?' And then, and he can induce a quite unmerited glow of pride in venerability, there is the man who simply says, in the low voice of awe: 'The Maryport & Carlisle!'

Your present commentator remembers being just such a young man, feeling the same sort of awe, when Distinguished Seniority in the person of Mr Dendy Marshall, listening kindly to boyhood recollections of the Drummond era on the London & South Western, said: 'There were still crowds of old Beattie engines in my young days. They were jolly things; you would have loved them!' Then there was an old porter at Oxford who grinned indulgently when he saw the famous *Hardwicke* being photographed. That was commonplace stuff! Now the *Lady of the Lake* . . .

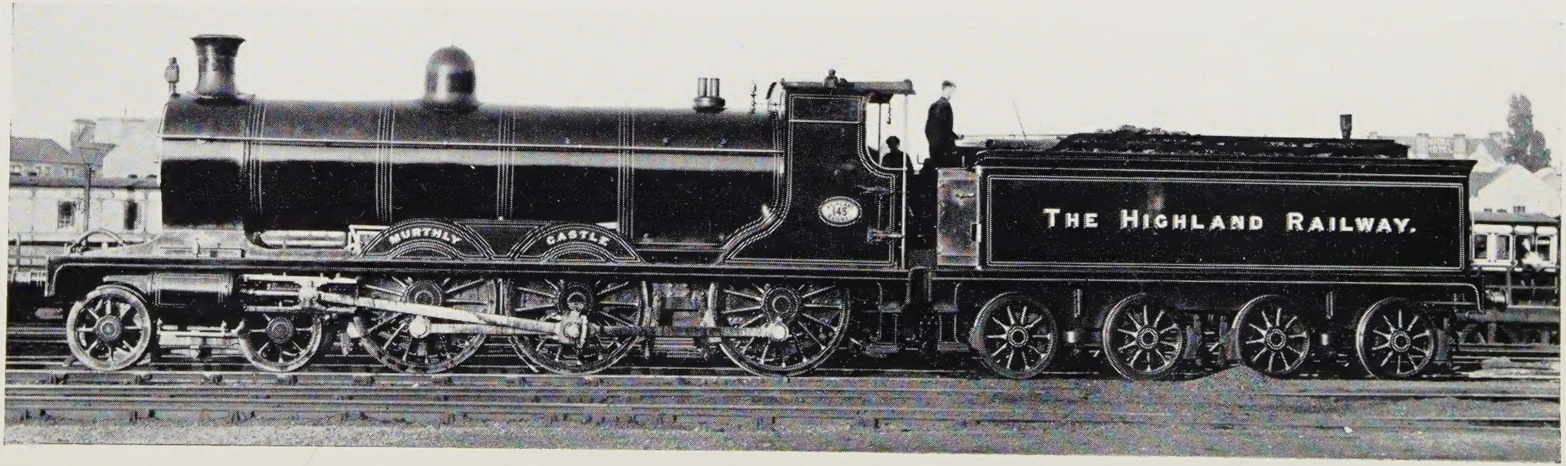
It is all comparative, of course. Our descendants will say to their seniors all the same sort of things: 'What was it *like* to go from London to Edinburgh on *steam*?' or, artlessly: 'Daddy, what was the "*Grouping* of 1923"?'

The thing is that the steam railway locomotive, since its quite modest appearance in history in the year 1804, has firstly changed the size of the world and the relations of nations in a way more revolutionary than any since anonymous Phoenicians first, it is believed, circumnavigated Africa under sail. The second thing is that it has, in its brief time, inspired the same sort of passionate affection on the part of disinterested persons as did the sailing ship over many centuries. It is more than possible that steam railroading in a minor form (no apology for the good early-nineteenth-century English which the Americans adopted!) will survive its earlier, larger applications, just as yachting, or simply *messing about in boats*, has survived the East Indiamen and the China Clippers. It has already happened in North Wales. It is happening in the United States. Steam has become a sport.

The charm of what the present middle-aged generation calls the Pre-Grouping Years lies in the fact that they were the years of successful monopoly in major land transport. Great Britain alone contained about six-score railway companies, nearly all operating on steam. They were intensely jealous of each other; inside the railway world there was no monopoly at all. There was equally intense pride in *belonging*. Running a service was all-important, but it was almost equally important that the



It was David Jones of the Highland Railway who brought the 4-6-0 locomotive to British railways, in the shape of his 'Big Goods' of 1894 (*above*). The type had long been established in the United States, and had first appeared on the Continent (Upper Italian Railway) ten years before its British advent. The large passenger version of the Jones engine, the 'Castle' class (*below*), came out in 1900, having been slightly modified as to details, and provided with an entirely new tender, by Peter Drummond. One of the original goods class has been preserved.



mechanism of that service should look both creditable and individual. The three largest British railways before 1923 – the Great Western, the London & North Western and the Midland – would not have looked like each other for all the Acts of Parliament that ever could favour them. And so it went for all the others. North Eastern looked no more like Great Northern, save in Joint Stock sleeping cars, than it looked like New South Wales. You could not possibly mistake the Easingwold for the Kent & East Sussex.

Here, then, is a brief panorama of *the trains that passed*. Gifted photographers have recorded them at the right times. Blessings on them!

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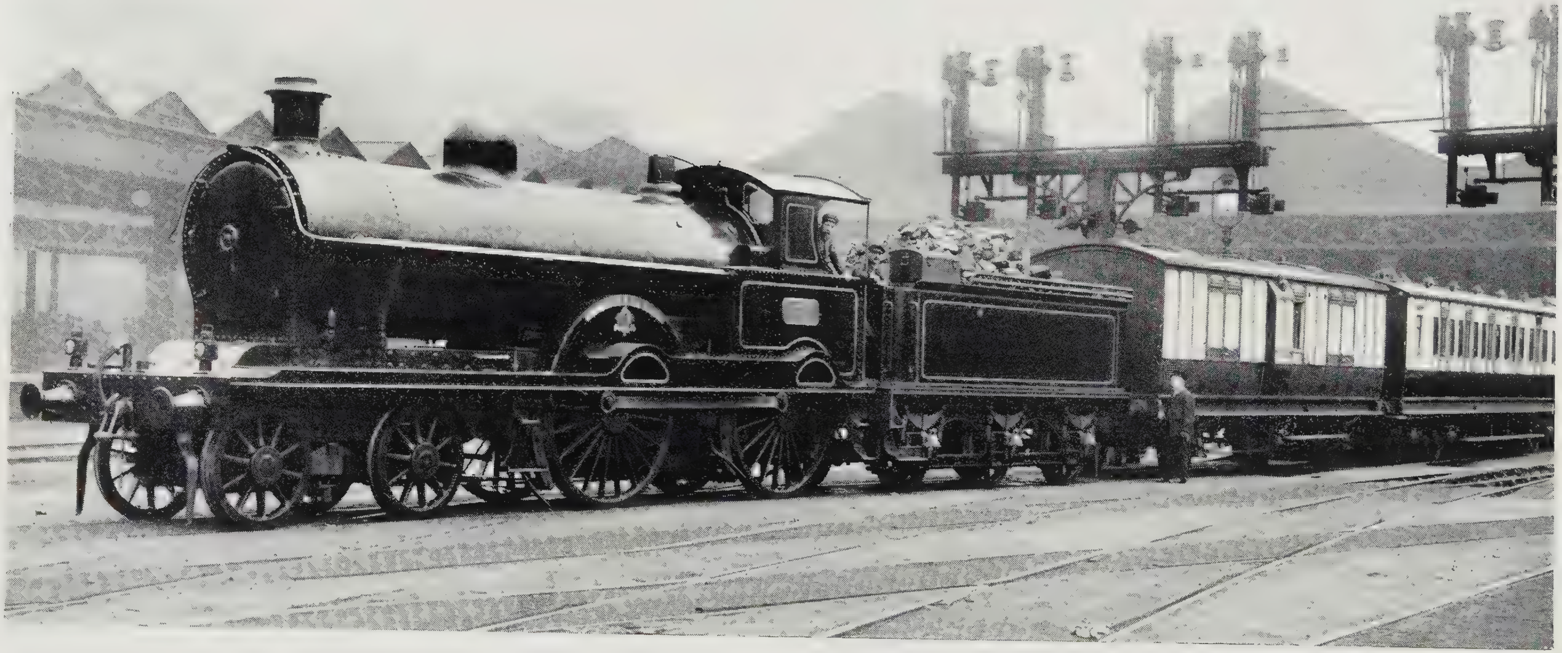
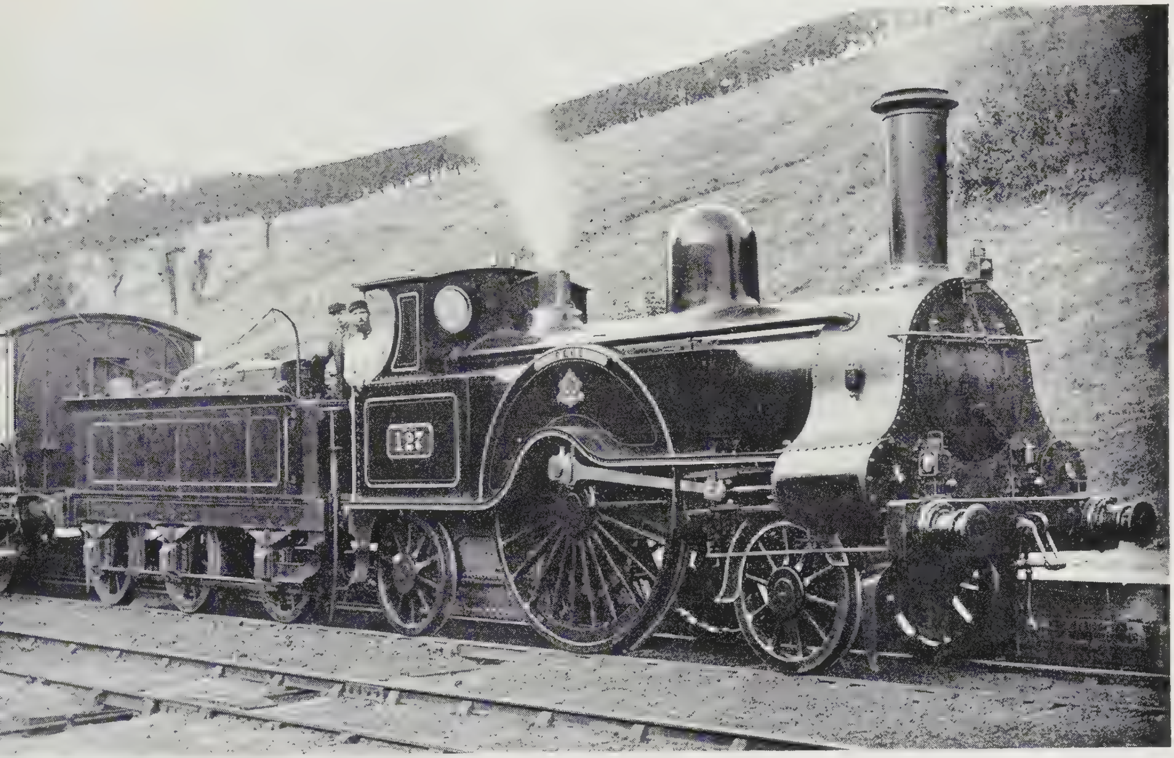
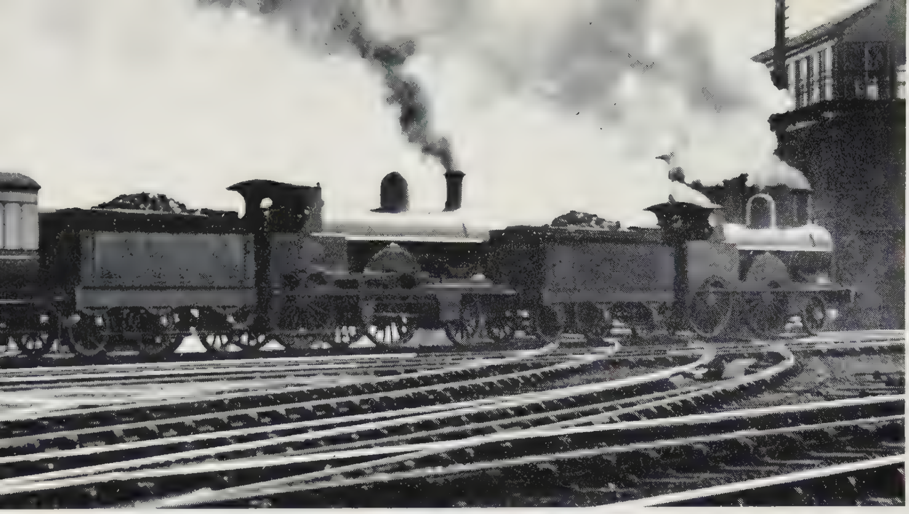


Euston, London & North Western Railway, in the nineteen-hundreds. George Whale's 'Precursor' class first appeared in 1904. In basic design it was strictly in the Crewe tradition established by Francis Webb in 1874; the styling never changed from then to the early days of the L.M.S. But not only was the 'Precursor' class a much bigger engine than its forebears, it had innovations in the provision of a bogie and slotted steel frames to the tender. Also, it was the first new non-compound express passenger design for the London & North Western Railway for thirty years. This was No. 1737, *Viscount*. Beyond are some of the L.N.W.R. company's characteristically chunky semaphores.

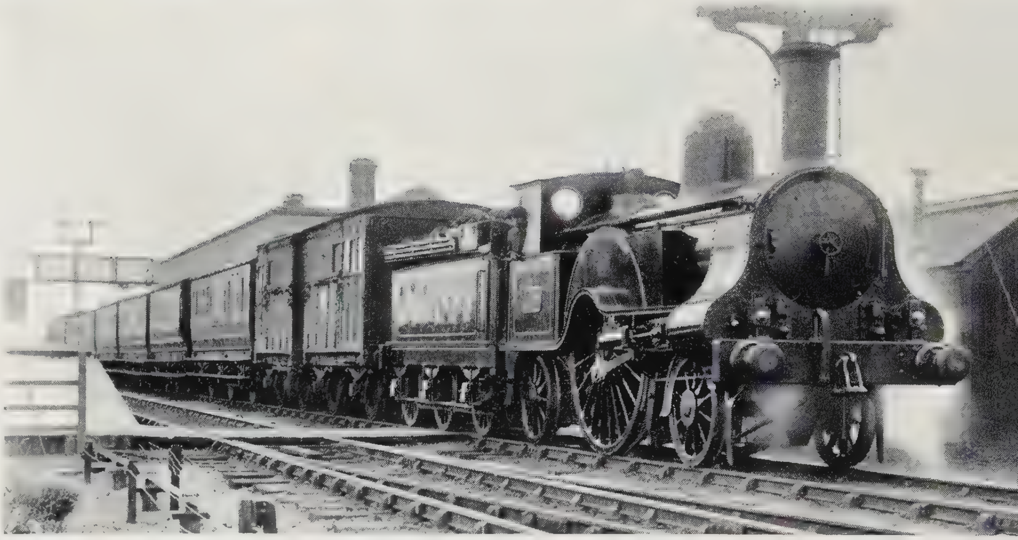


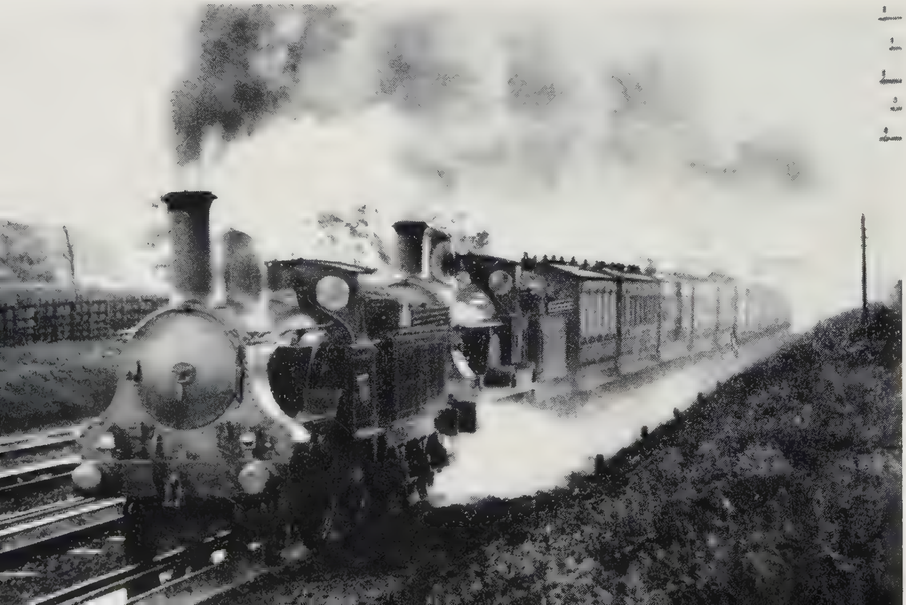
On the London & North Western Railway, John Ramsbottom's 'Problem' or 'Lady of the Lake' class first appeared in 1858. The alternative class name was taken from the engine shown at the 1862 exhibition in London. The last of the class survived into the earlier years of the present century. These two are shown in their later years with F. W. Webb's detail alterations. In the view of *Peel* (*above*) the old outside communication cord is clearly visible on the tender. One of her sisters (*right*) picks up water from Castlethorpe troughs, giving a liberal bath to the leading parcels van.



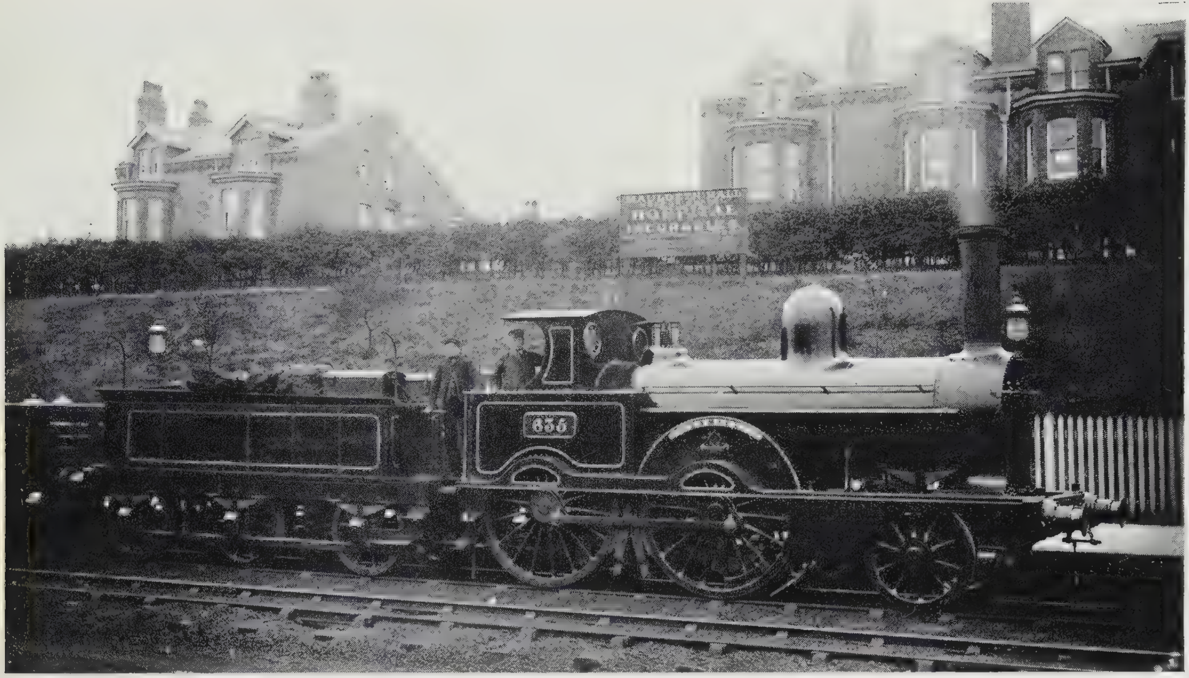
Shrewsbury in the nineteen-hundreds. A London & North Western cross-country express pulls out towards Hereford with a Webb 'Jumbo' piloting a 'Dreadnought' three-cylinder compound. The leading van is Great Western.

Last days of the 'Ladies' on the London & North Western Railway. The coaching stock, especially the two horse-boxes behind the tender, looks nearly as mid-Victorian as the locomotive, but the latter proudly carries her express passenger headcode.

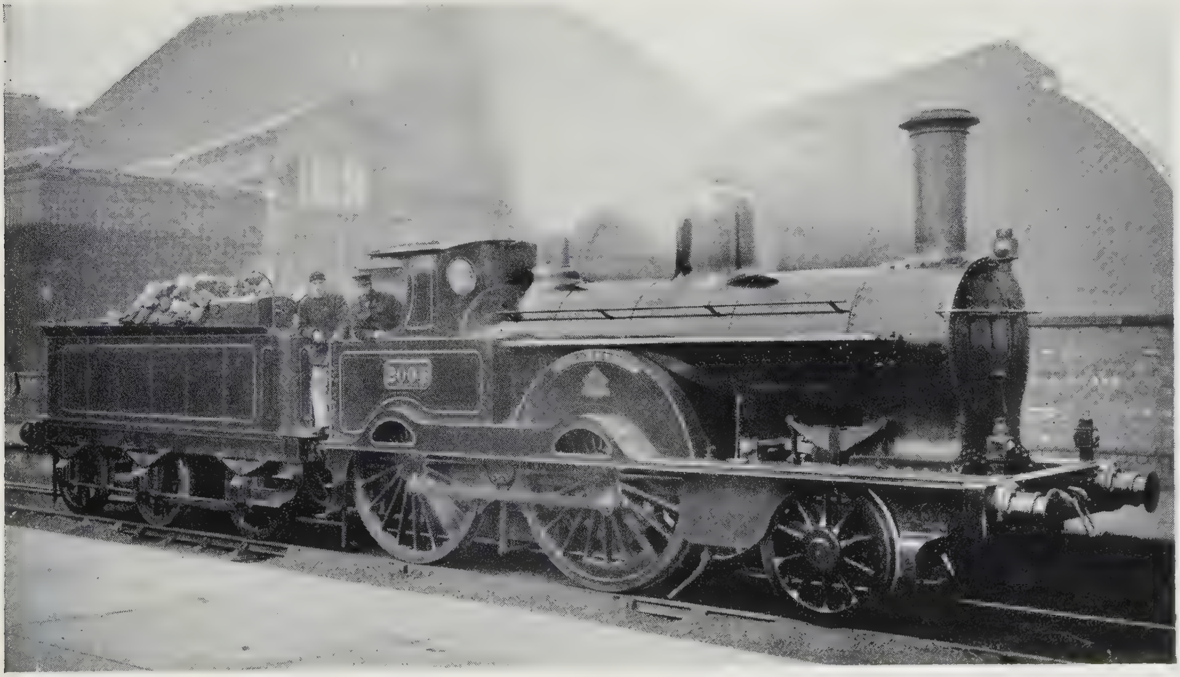


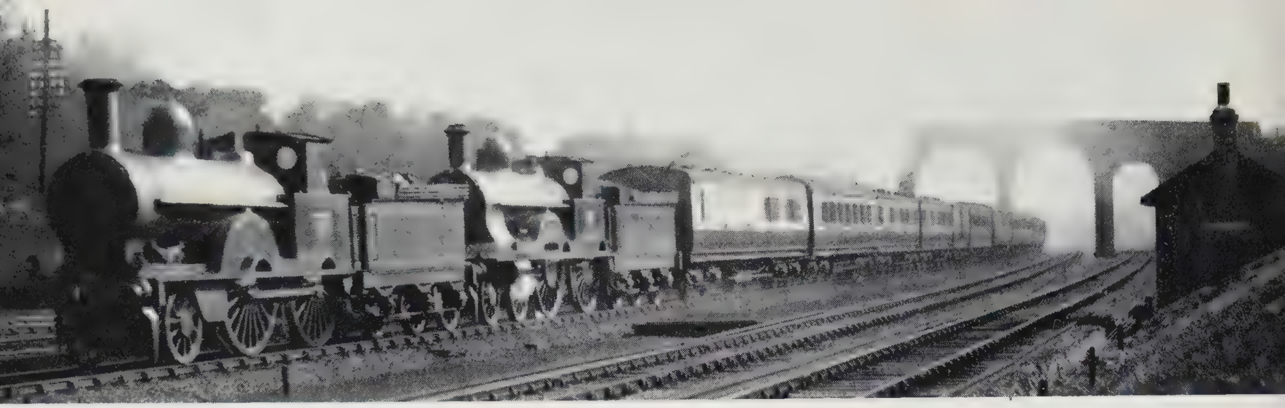


Some of the last duties of the 'Problem' class were on piloting the fastest London & North Western expresses. Here, in a storm of water-trough spray, one leads a 'Black Prince' four-cylinder Webb compound.

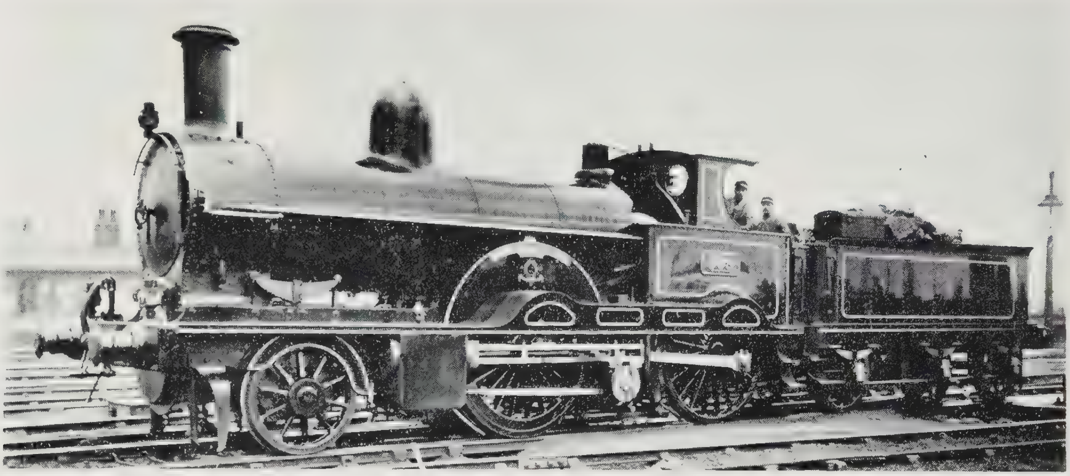


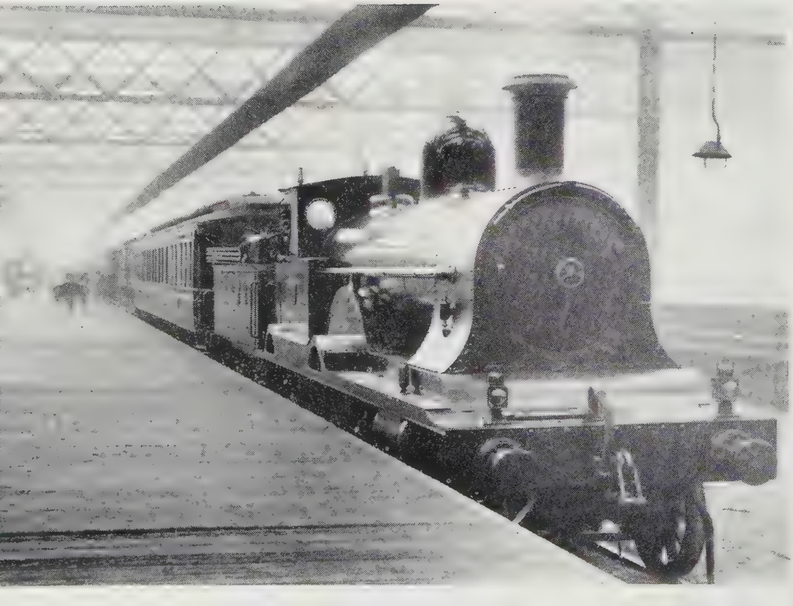
Though less famous than the single-drivers, many of John Ramsbottom's four-coupled passenger engines for the London & North Western Railway ran for long years, notably in the Manchester area, where both these views were taken. *Above* is the 6 ft. *Zamiel* in local goods service; *below*, the 6 ft. 6 in. *Witch* poses provocatively at Manchester London Road.





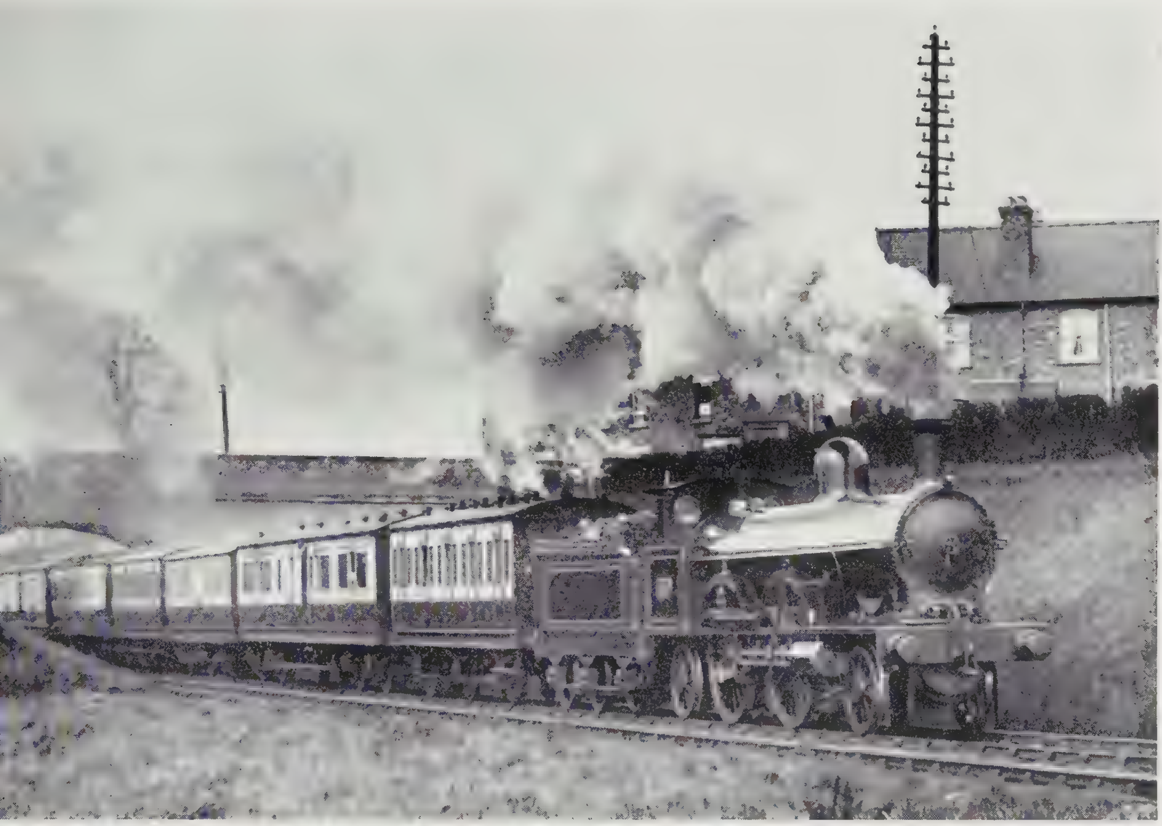
On the London & North Western, about 1910. Curving away from Bushey Cutting, a 'Jumbo' pilots an 'Alfred the Great' four-cylinder compound. A marked improvement is seen in rolling stock, though it is still mixed.



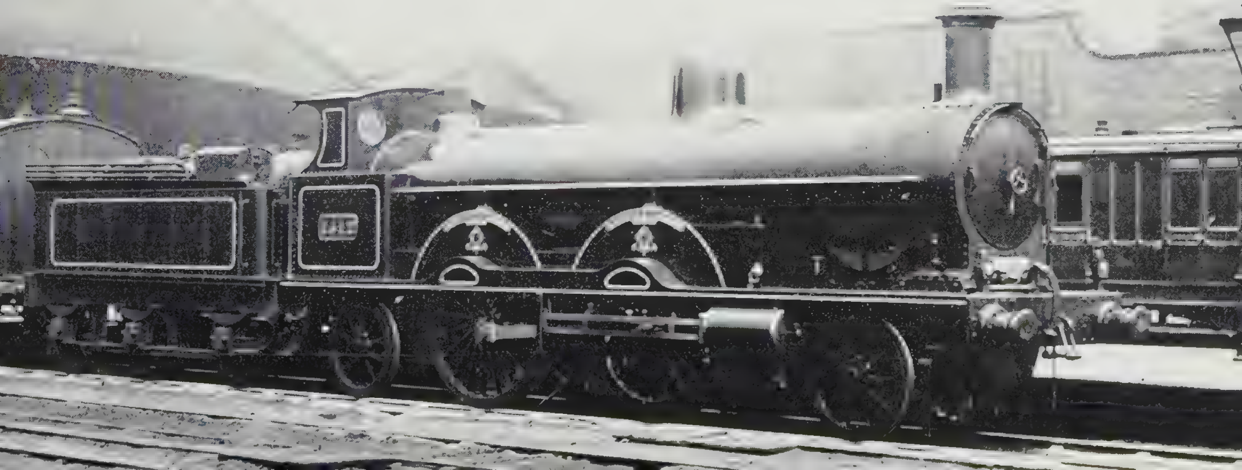


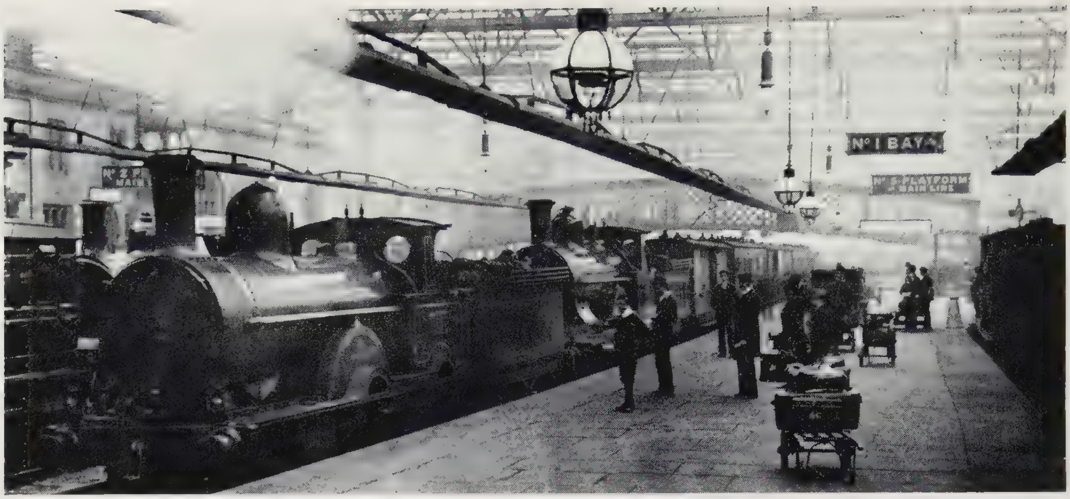
Above: L.N.W.R. No. 508, *Titan*, one of Webb's 'Dreadnought' class three-cylinder compounds. George Whale replaced her with a 'Precursor' of the same name.

Left: Euston departure: The time is early in the twentieth century; the engine is a Webb 'Black Prince' four-cylinder compound 4-4-0 (the leading truck was radial, not a bogie). Next to the tender is a narrow-vestibule twelve-wheeled diner.

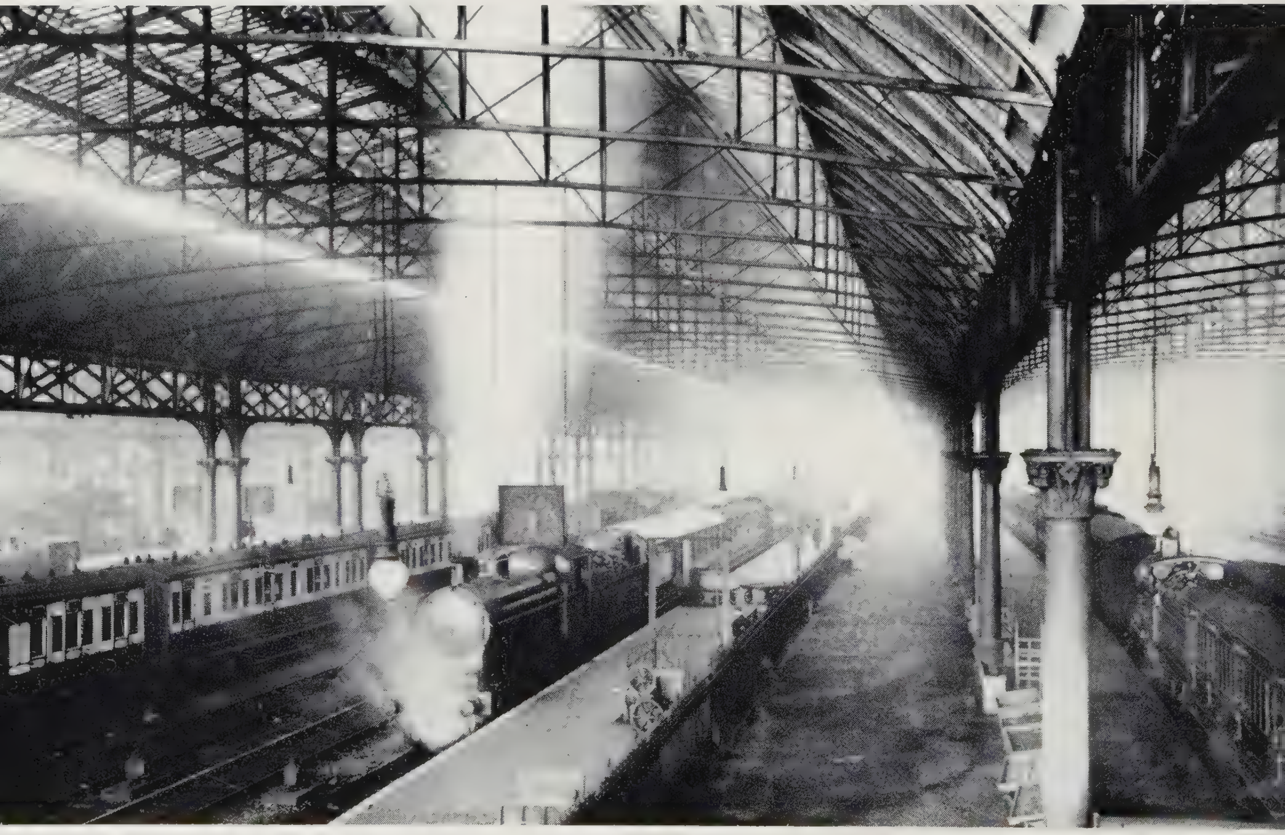


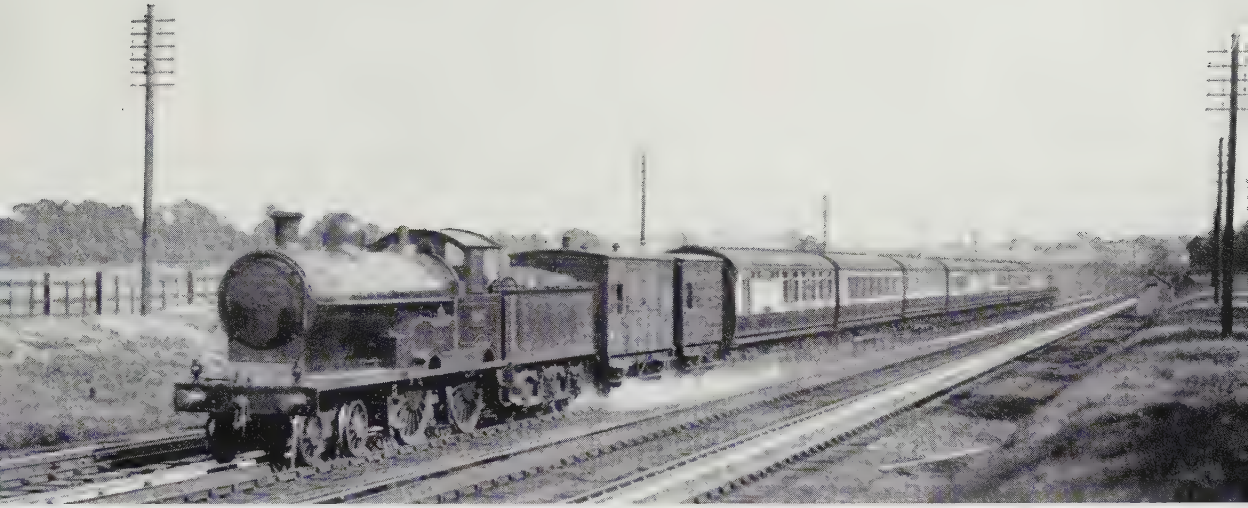
Not many London & North Western men really liked Webb's 'John Hick' class three-cylinder compounds. Basically, they were an uncoupled version of the classic French 2-4-2 express engine, though mechanically they were very different. The *upper* picture shows No. 1505 *Richard Arkwright* on a Shrewsbury–Hereford local; the *lower* example is No. 1512, *Henry Cort*.





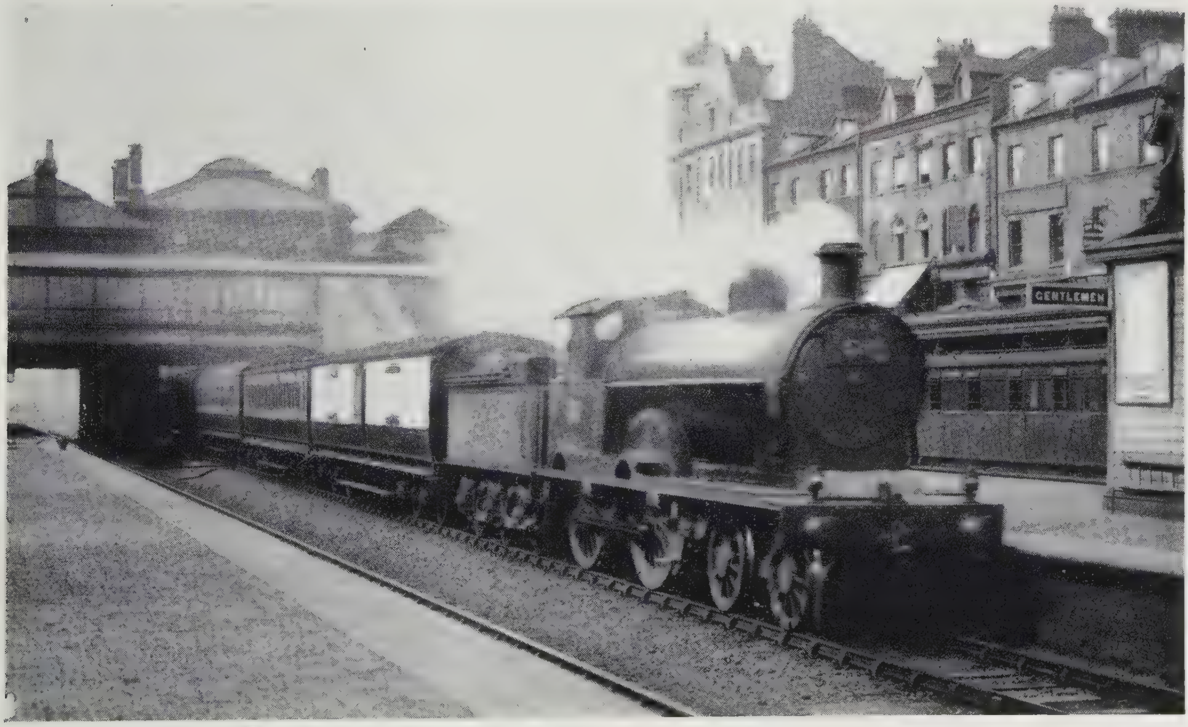
London & North Western frontier posts. *Above* is Carlisle Citadel with a West Coast express, double-headed by a 6 ft. 2-4-0 and a 'Black Prince' four-cylinder compound. The Midland keeps its end up in the left background. *Below* is Manchester London Road, with the London & North Western (left) rigidly divided by iron railings from the establishment next door (the Great Central). The latter has two trains at one platform.

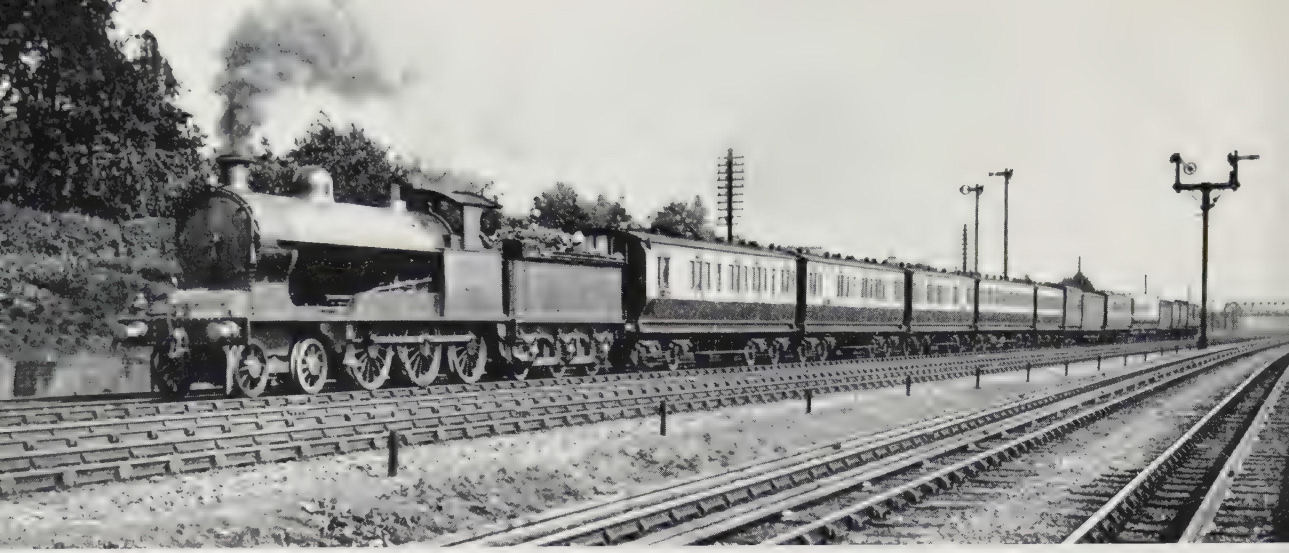




London & North Western expresses, pre-1914. *Above*, on a London to Liverpool and Manchester express, is C. J. Bowen Cooke's 'George the Fifth' class engine *Coronation*, the five-thousandth built at Crewe. *Below*, a 'Precursor' heads a Birmingham and London express through the northern suburbs. A specimen of the North London Railway's austere passenger rolling stock is visible beyond.

[*Above: H. Gordon Tidey*

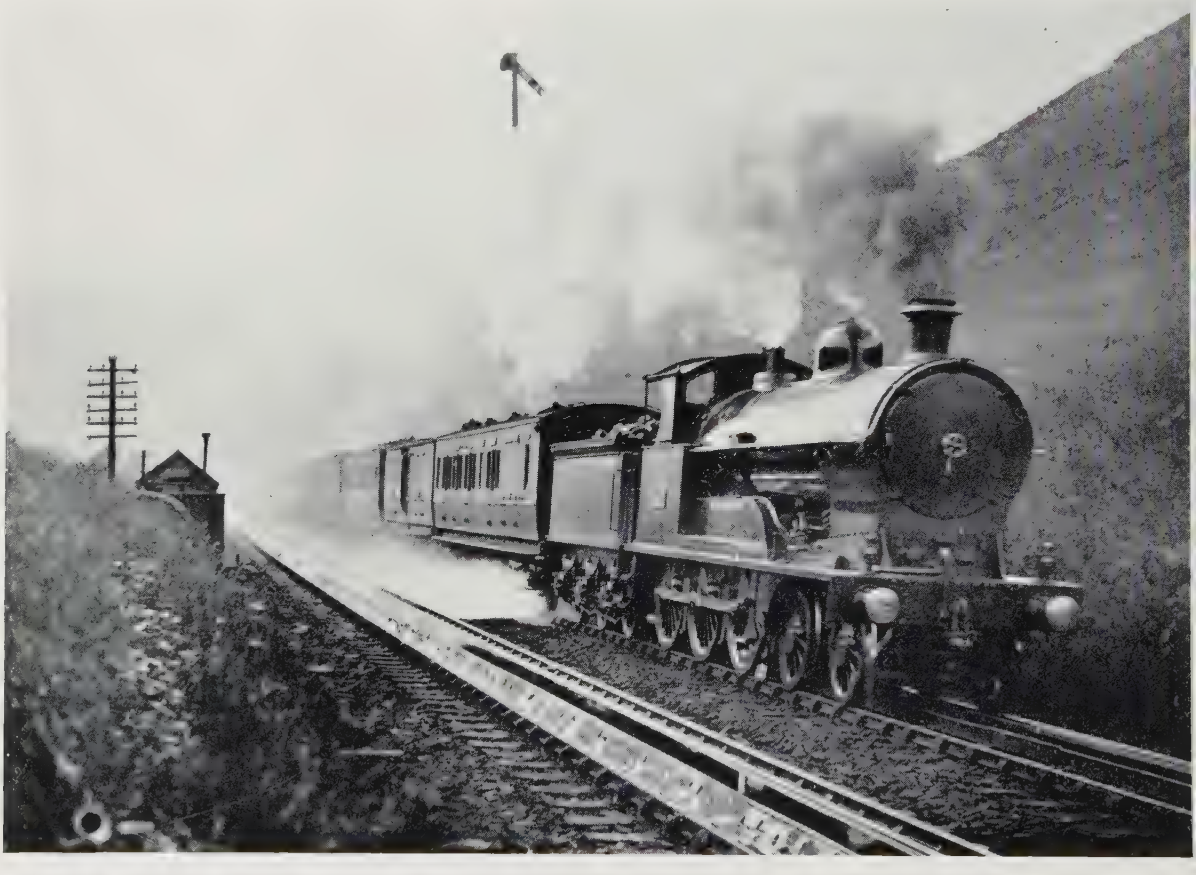




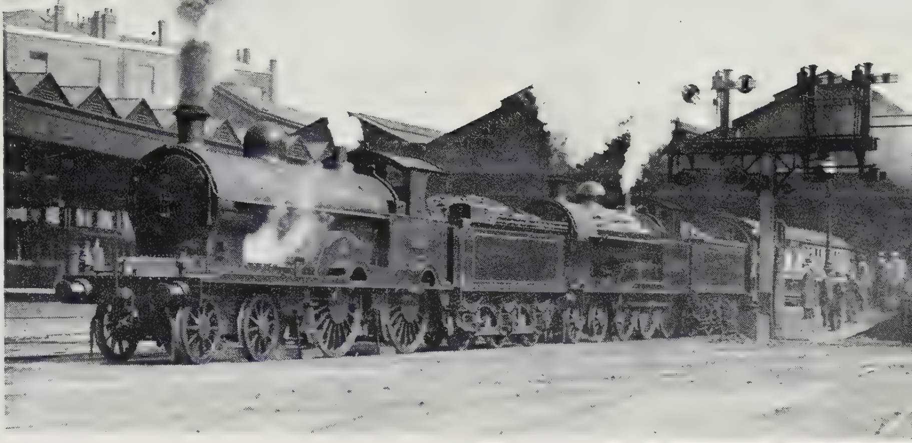
Above: Latter years of the London & North Western Railway. *Above* is a down semi-fast train near Wembley, headed by one of George Whale's mixed-traffic 4-6-0 engines. In the distance is the Great Central overbridge. On the right, conductor rails are laid, but not yet in use.

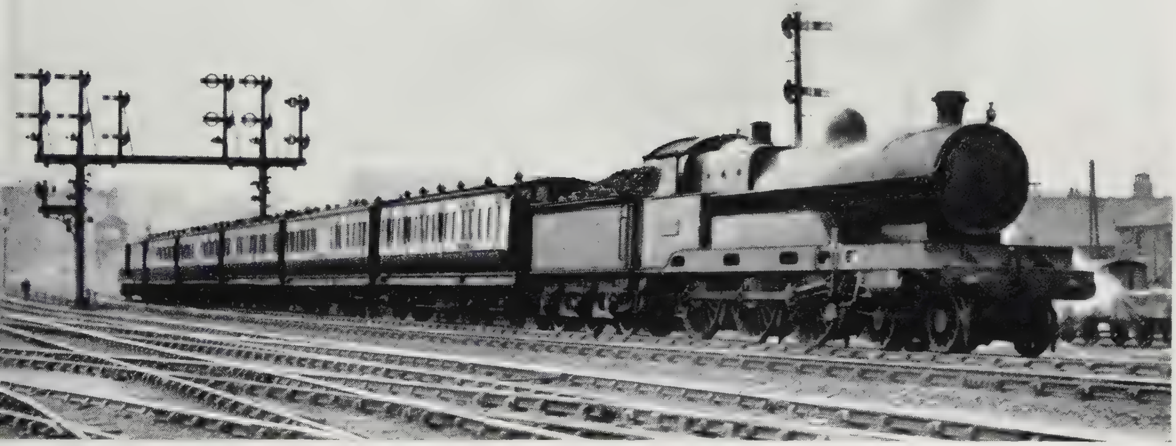
Below: All down the years a peculiar thrill was to be had on Dillicar watertroughs, up among the high, bare fells, whether by high daytime or, so often in our experience, in the grey dawn. Here a 'Prince of Wales' superheated 4-6-0 heads a West Coast express.

[H. Gordon Tidey



Right: Euston again. A 'Precursor' pilots a 'Prince' on the 2.0 p.m. Scotch express. (It was always 'Scotch'; a 'Scottish express' was one running entirely in Scotland.)

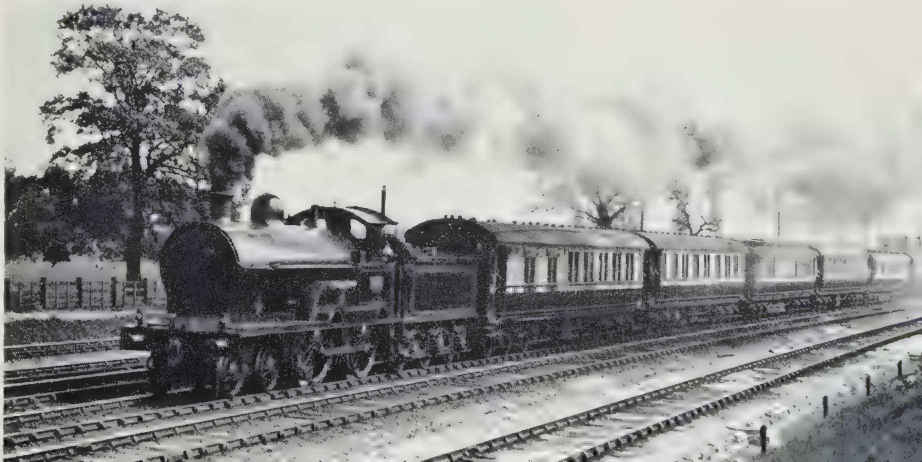


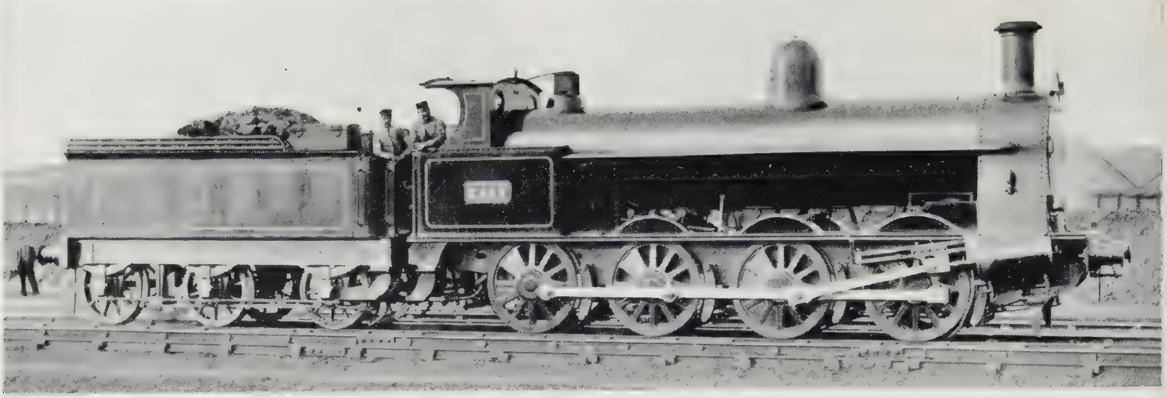


Above: Running in a 'Claughton' at Carlisle. Bowen Cooke's four-cylinder express engines were the last passenger locomotives brought out at Crewe in London & North Western days. The train includes radial eight-wheel coaches.

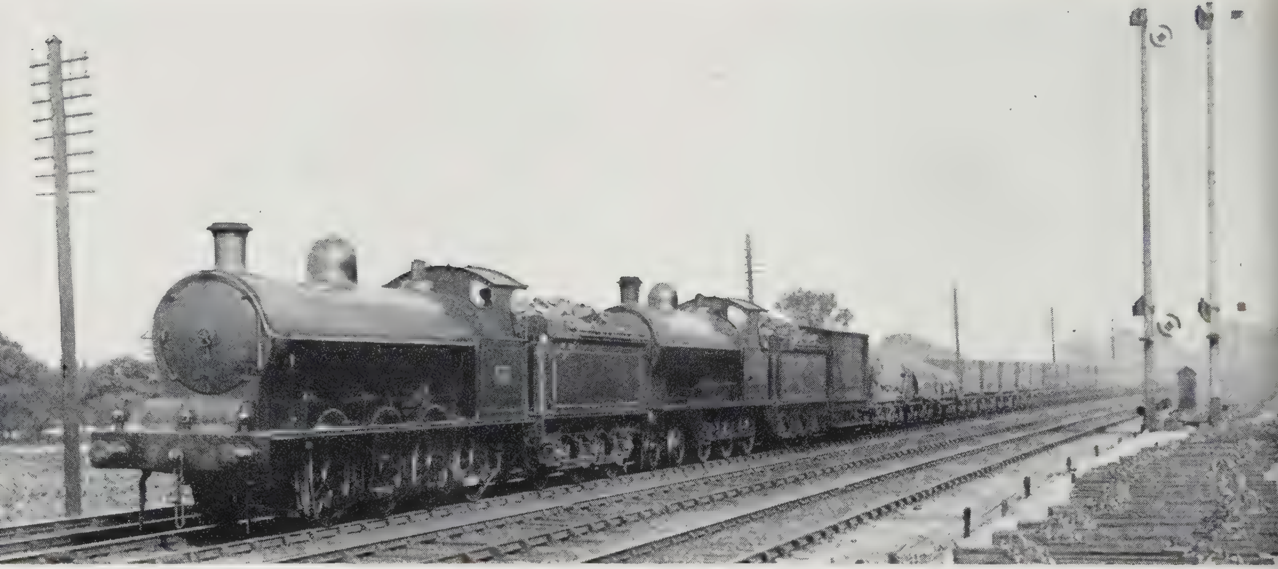
[*H. Gordon Tidey*

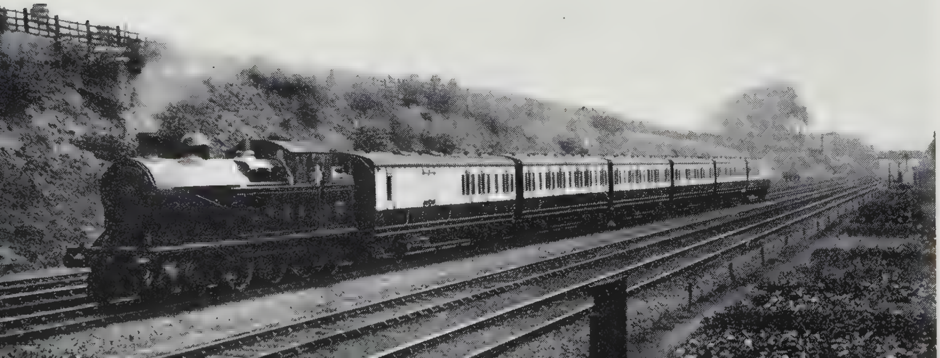
Right: Near Kenton, about 1914. The engine is a 'George'; the train is the 2.0 p.m. West Coast express to Glasgow and Edinburgh, with the sumptuous twelve-wheeled stock specially built for the service.



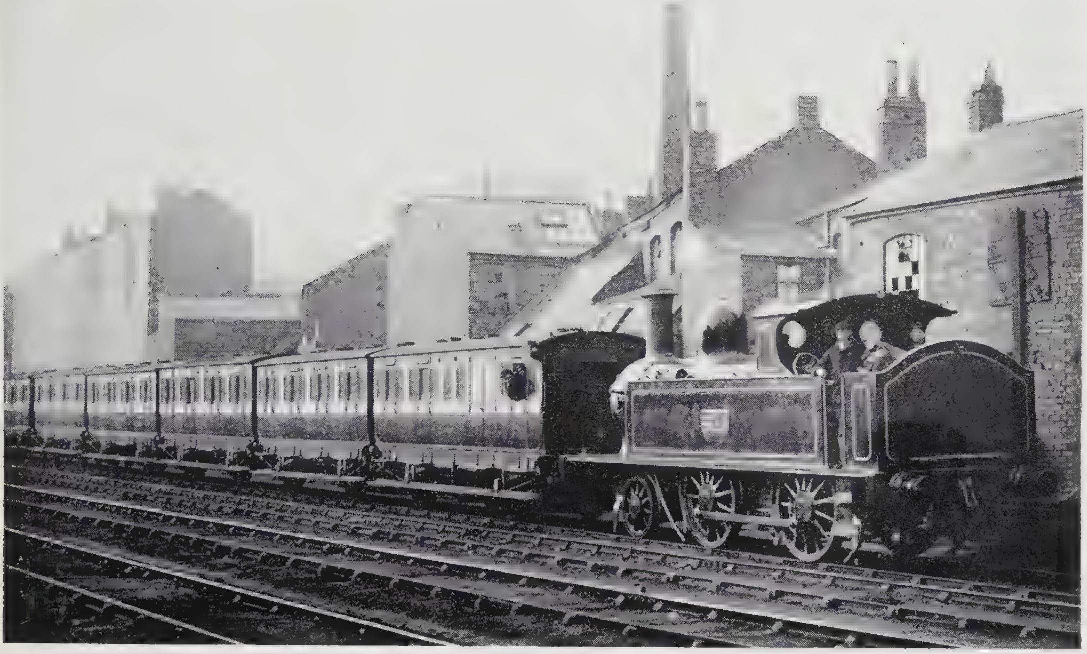


London & North Western goods. *Above* is one of Webb's three-cylinder compound coal engines; *below*, six- and eight-coupled wheels, with simple expansion, handle a seemingly endless coal empties train, and are photographed near Harrow.

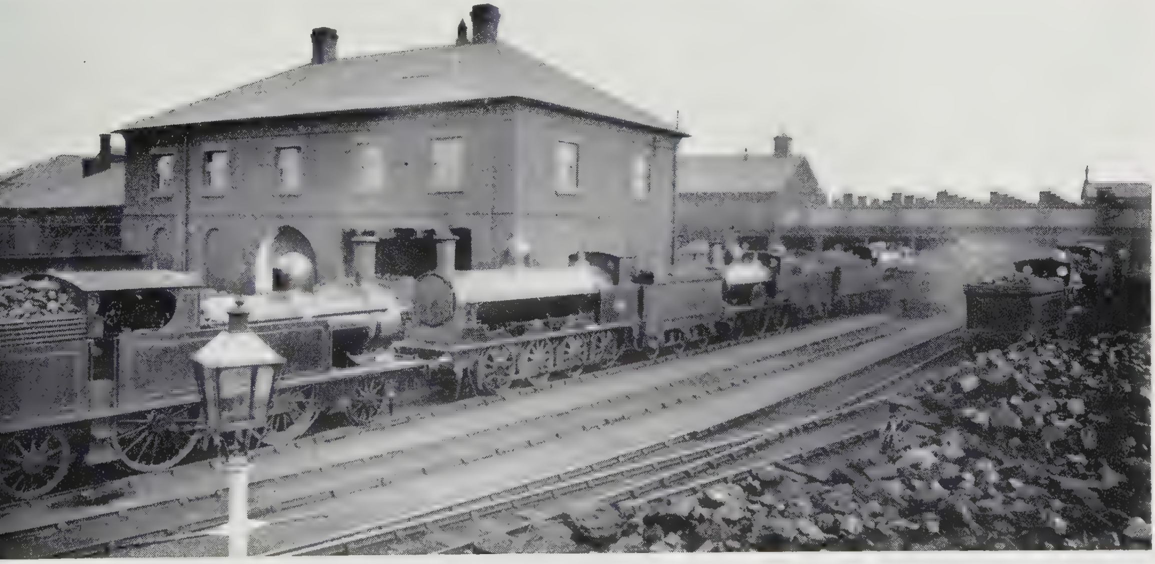




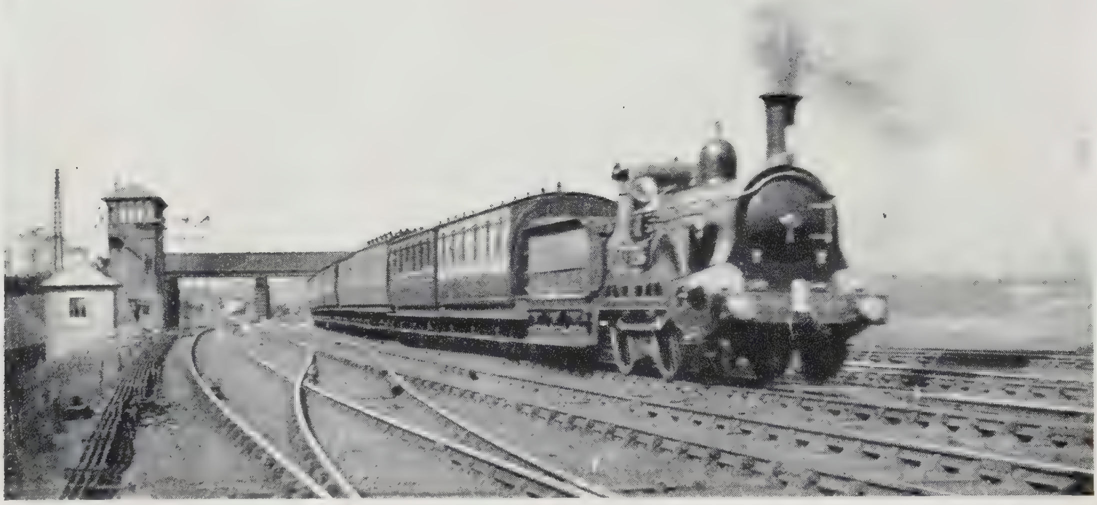
Commuting to the City: One of Bowen Cooke's 4-6-2 tank engines, rarely seen in the South, handles a Euston-Bletchley business train, made up of non-corridor lavatory stock specially designed for such service.



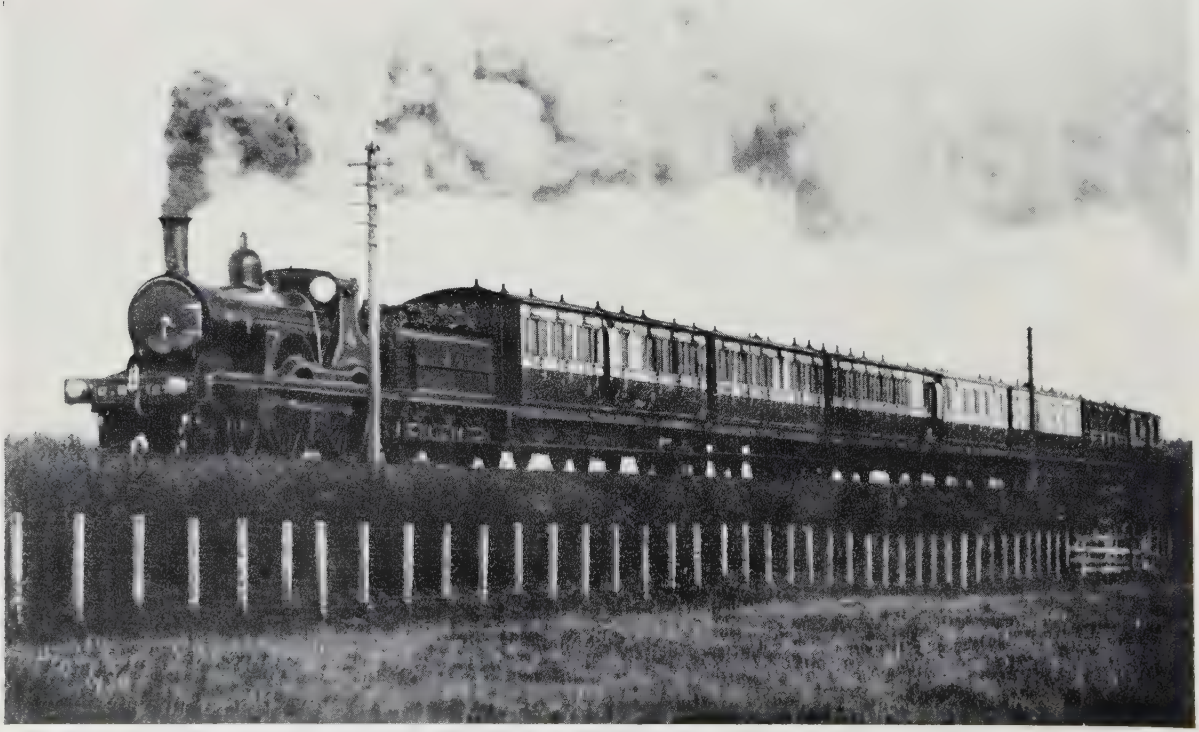
Commuting in older style on the London & North Western Railway. The Webb 2-4-0 tank engine was undersized for her time, with insufficient bunker capacity. The view was probably taken in the 'nineties, when the coaches shown were already archaic.

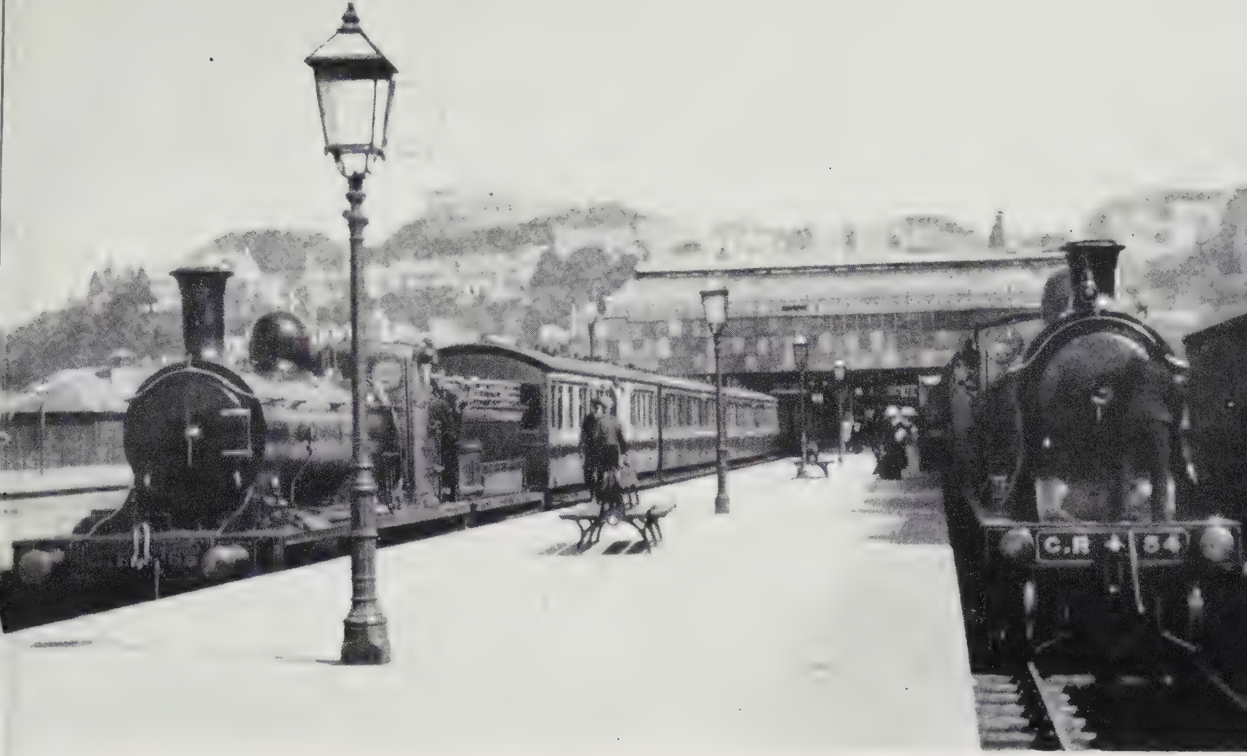


A characteristic London & North Western shed scene. From left to right are a large-wheeled 2-4-2 tank engine, a simple-expansion 0-8-0 goods, and a 'Jumbo', all by Francis Webb.

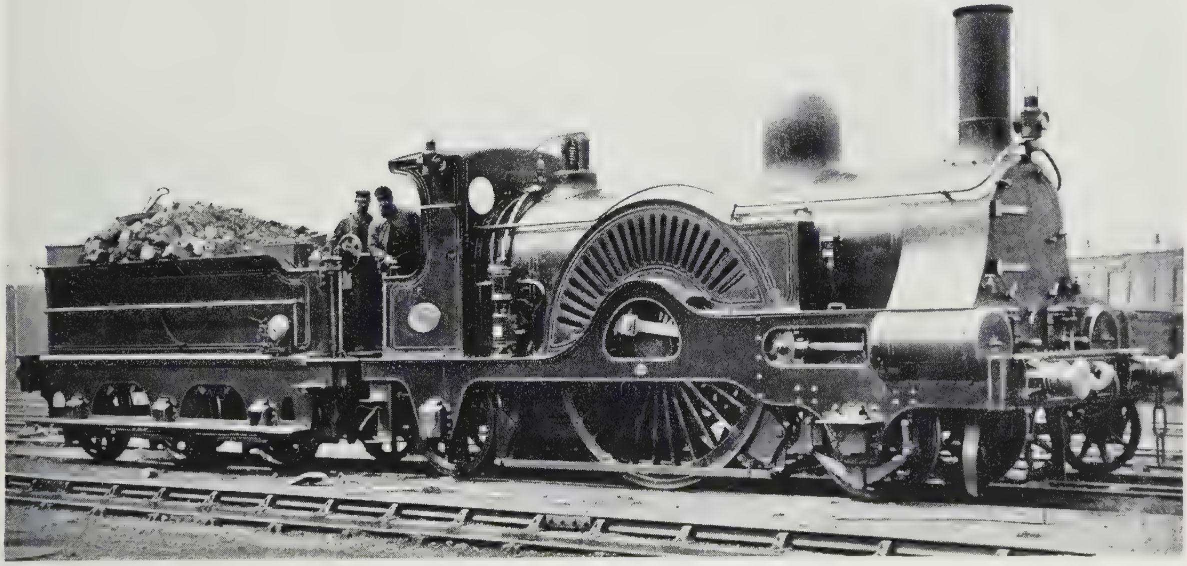


The 'thing' about the Caledonian, as with the Great Western in England, was that it produced admirable modernity and fascinating antiquity. That applied in the eighteen-eighties; it applied equally in our own boyhood experience of it, coming rather later. Here are two Caledonian expresses. The *upper* engine is Benjamin Conner's, dating back to the 'seventies; her boiler is Dugald Drummond's, and the scene is post Victorian. *Below* is an express headed by one of the 7 ft. 'Dundee Bogies', also a Conner design, but completed by George Brittain and, again, rebuilt by Dugald Drummond.

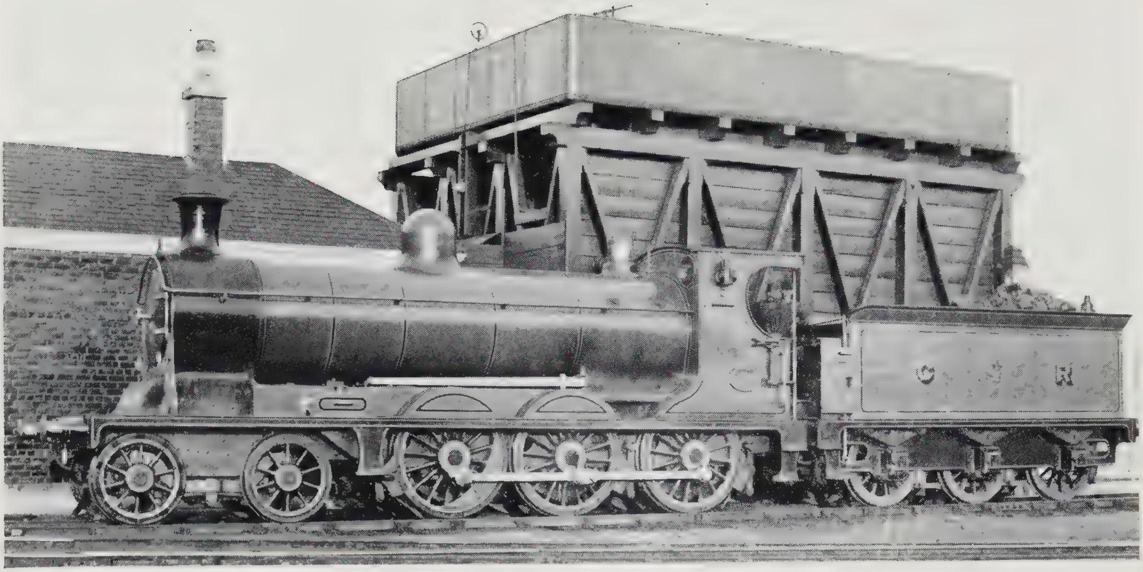




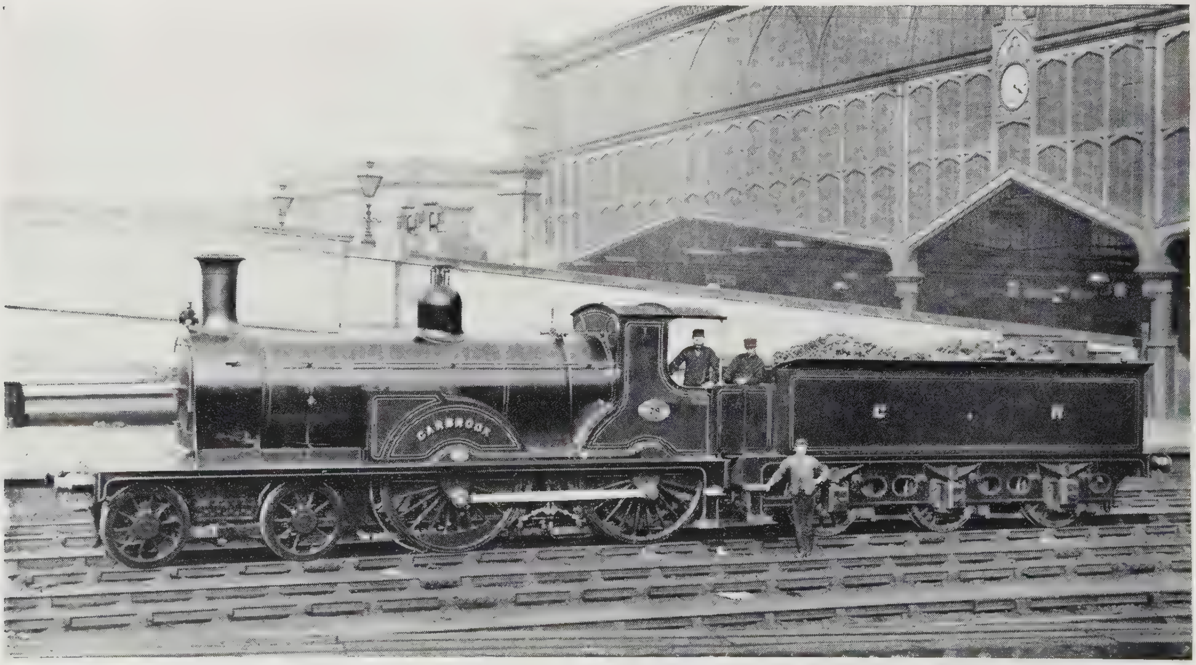
This is how we remember Oban on the 'Caley'. No. 54, a McIntosh 5 ft. 4-6-0, heads the morning train to Glasgow; George Brittain's No. 65, one of the original 'Oban Bogies', rebuilt with a McIntosh boiler, poses as station pilot.



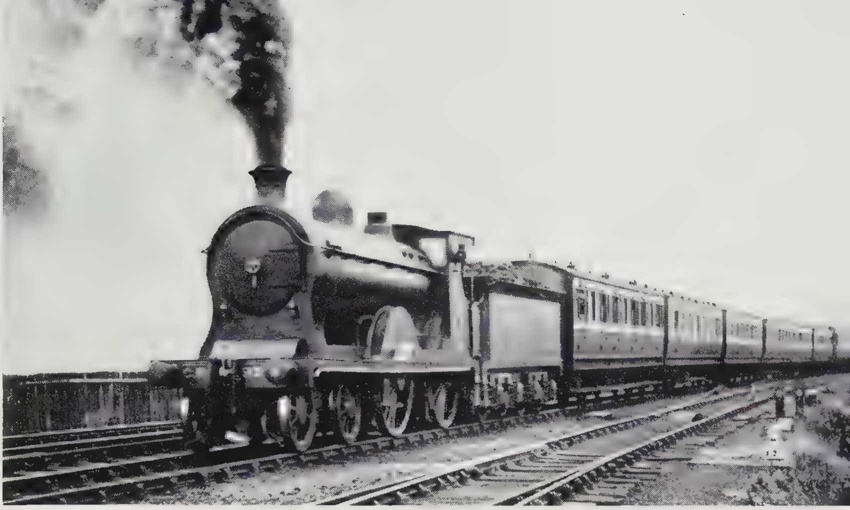
Driving wheels were real ones on Benjamin Conner's 8 ft. 4 in. singles, many of which were built in the eighteen sixties. Dugald Drummond said of his predecessors' engines that they were 'all legs and wings', but these in their day, which was that of the L.N.W.R. 'Problems', were about the heaviest British express engines.

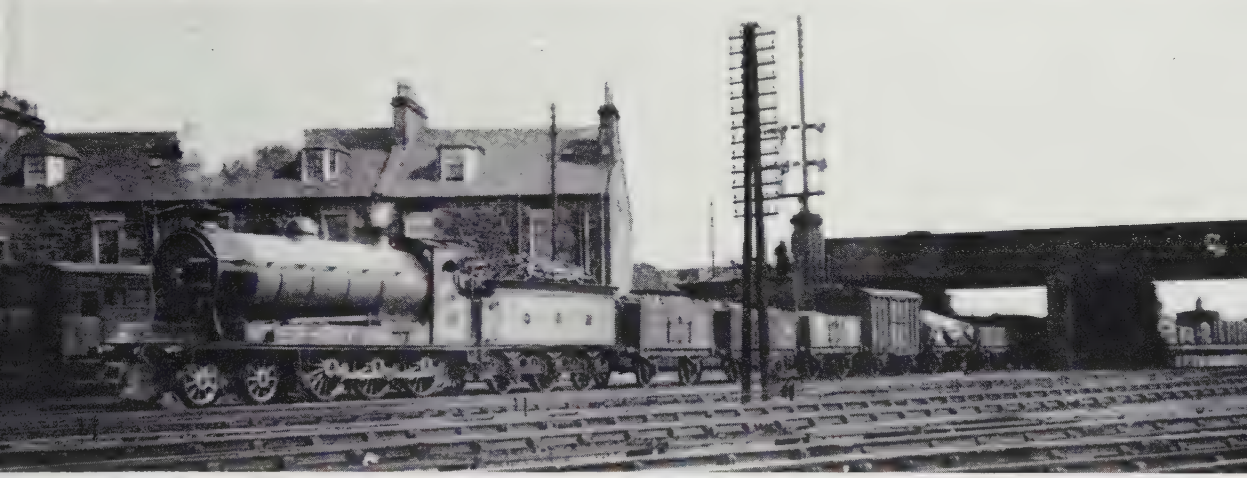


Above is one of J. F. McIntosh's 5 ft. 4-6-0 engines, which for a quarter of a century worked the through trains on the Callander and Oban Railway. This one was sky blue. *Below*, in Prussian blue, Dugald Drummond's *Carbrook* awaits the 'Corridor' at Carlisle. The time is in the middle 'nineties; behind the engine is the splendid iron roof which modern British vandalism has destroyed.

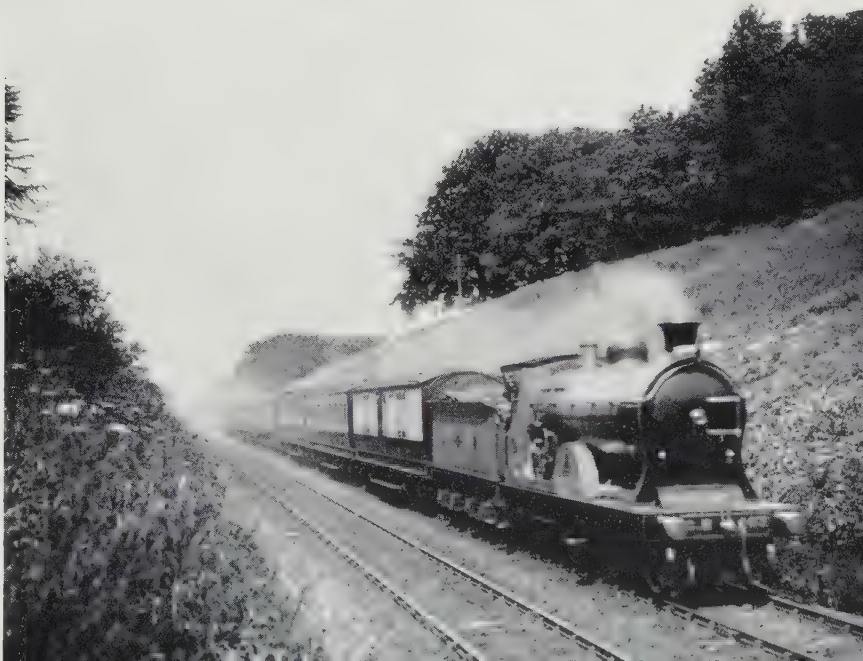


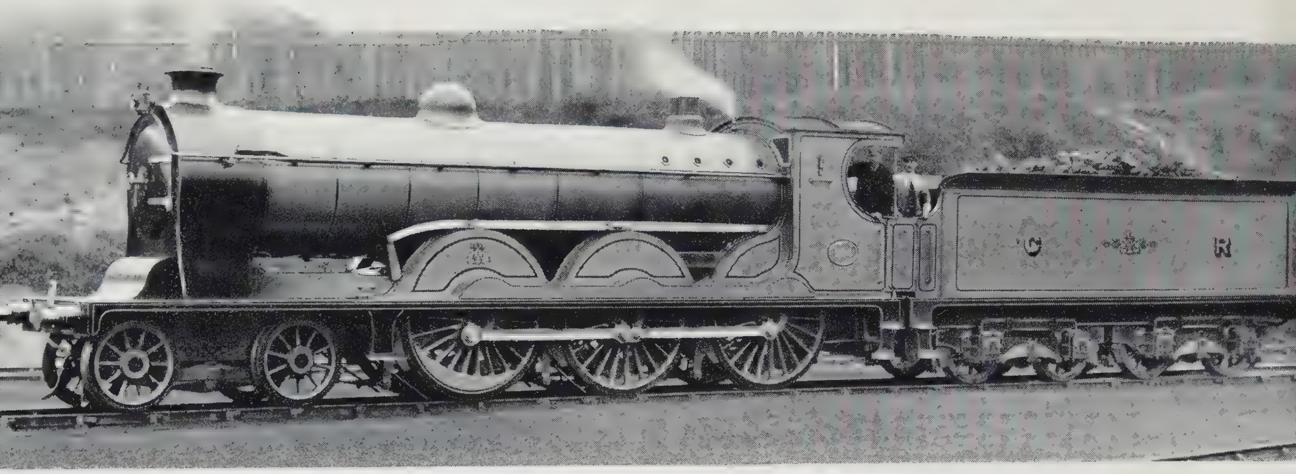
On top of the Lowlands. A Caledonian express (with sidelamps only on the engine) pulls over Beattock summit. The engine is one of J. F. McIntosh's 'Dunalastair IV' class.



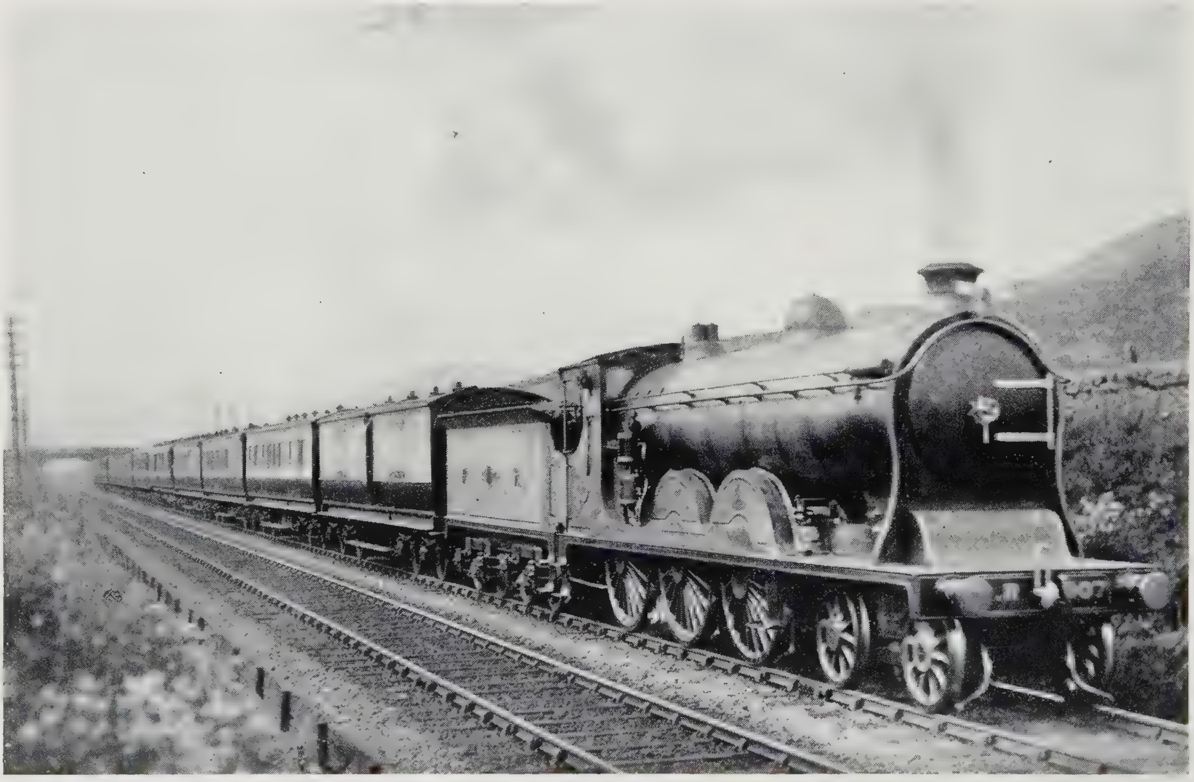


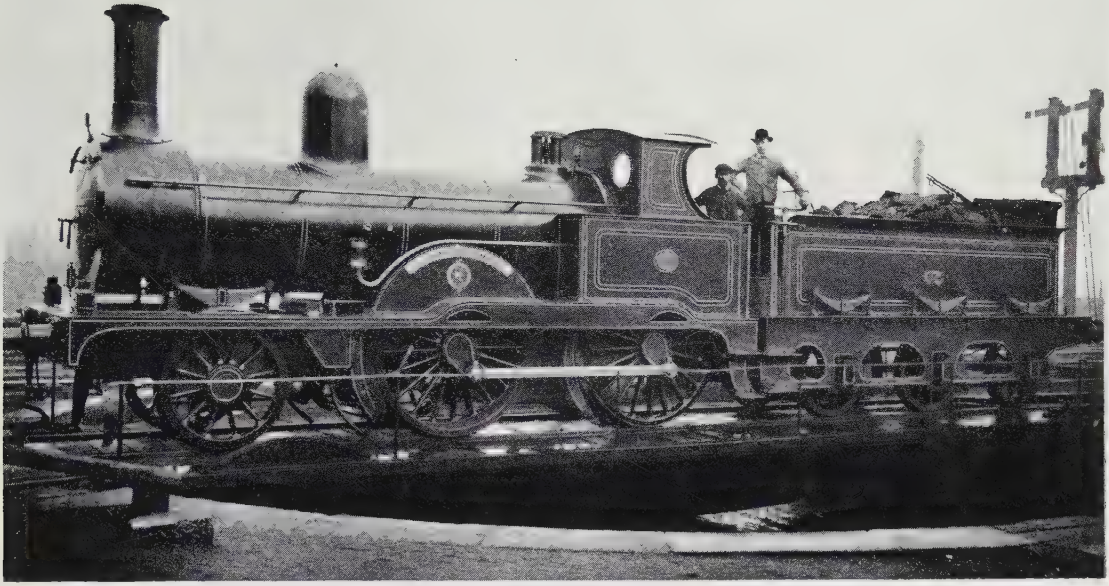
Above, at Stirling, a Caledonian goods heads north behind a 5 ft mixed traffic engine, a larger-boilered version of the Oban type already shown. *Below*, in a haze of blue-grey smoke, a 'Dunalastair IV' drifts with a West Coast express.



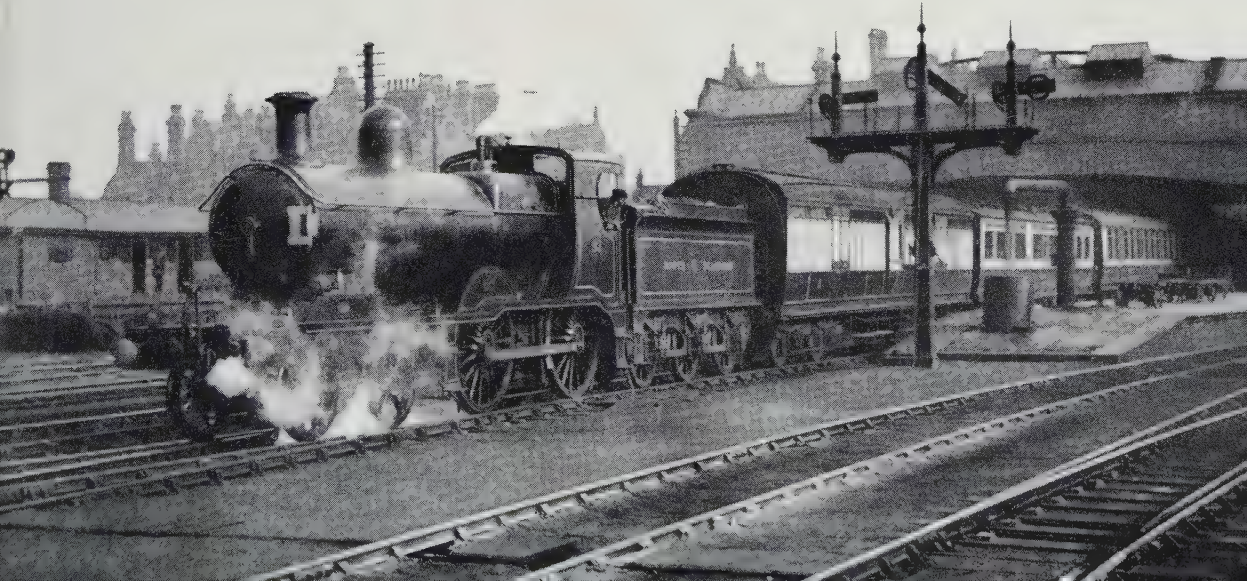


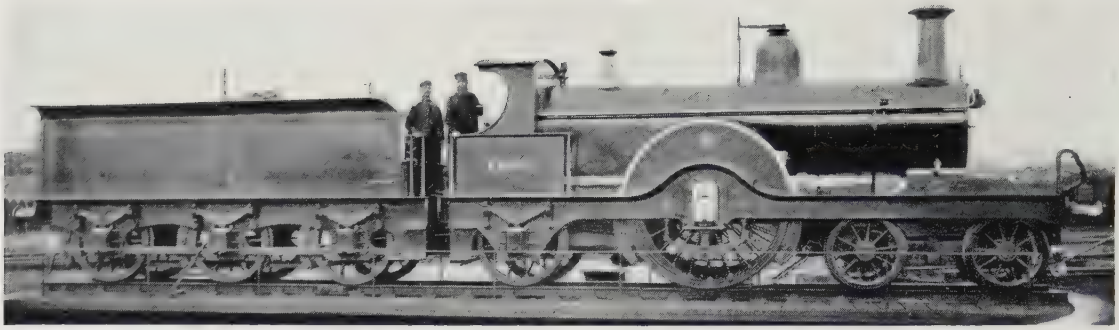
John F. McIntosh's *chef d'oeuvre* on the Caledonian was the 'Cardean' class. Neither of these is the original *Cardean*, which always worked the 'Corridor' between Glasgow and Carlisle, but both are, like her, painted sky blue. The *lower* engine, No. 907, here shown on a southbound West Coast express near Elvanfoot, had a sad end in the Quintinshill disaster of 1915, when she was struck head-on by 4-4-0 No. 121. [*Below: H. Gordon Tidey*



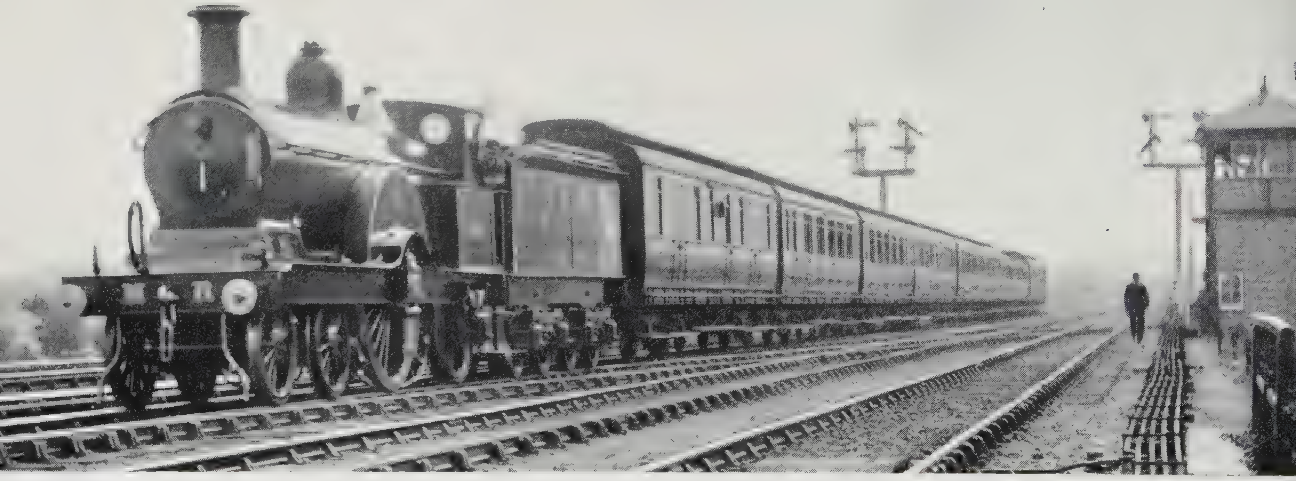


Sometimes critically, but not unkindly, both Arnold Bennett and H. G. Wells commemorated the North Stafford in almost imperishable print. Certainly the railway has its place in English literature. *Above* is *Colin Minton Campbell*, built at Stoke in 1882, one of the company's only two named engines (the other was *John Bramley Moore*). *Below*, an Adams 4-4-0 heaves a London-Manchester express out of Stoke, whose Victorian-Tudor North Stafford Hotel sits complacently in the background.

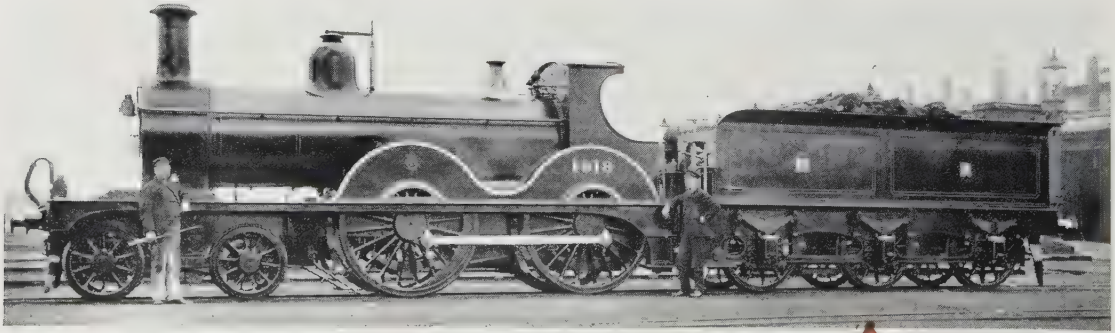


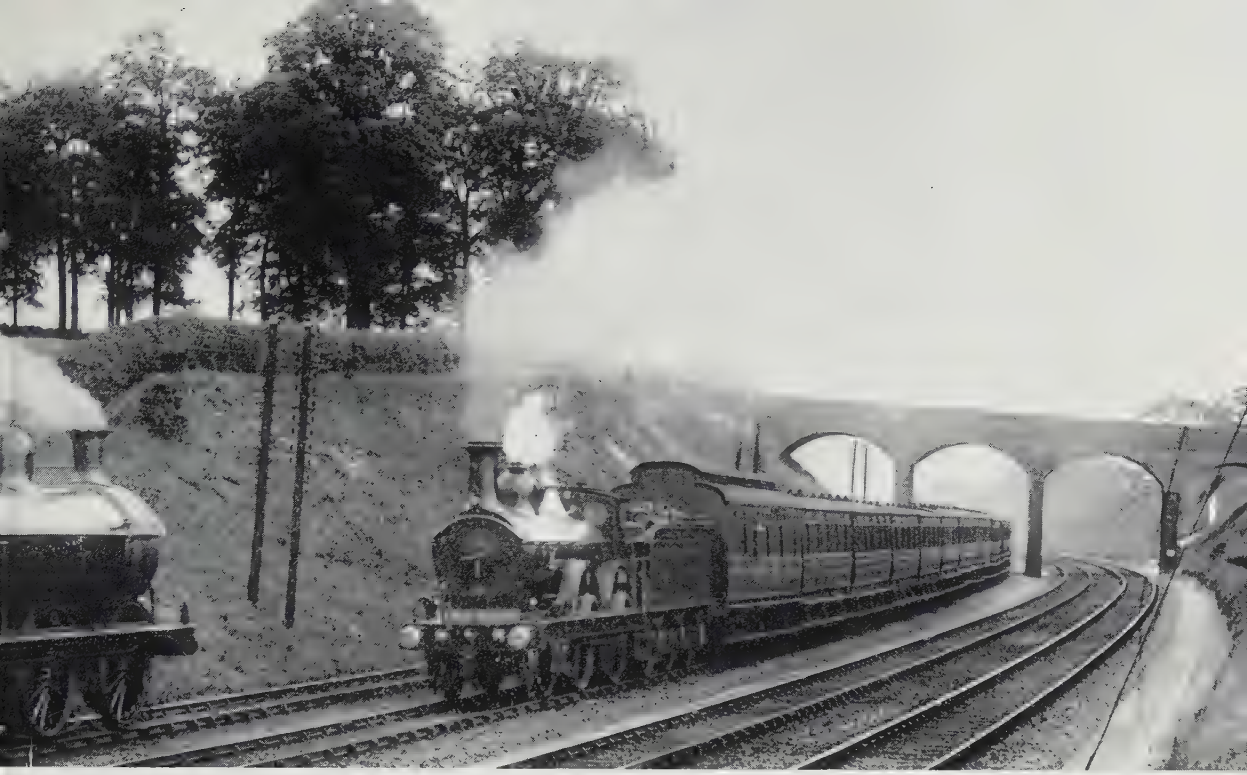


At the time, people called it 'the Modern Single', and so it was in the late 'eighties, for the decline of the single driving axle had begun thirty years before. Steam sanding revived it. S. W. Johnson's No. 1863 on the Midland was one of a set turned out at the end of 1889. *Below* is one of the last and largest of his bogie singles, of the 'Princess of Wales' class, built in 1900, the largest single-drivers built in England excepting some for China.

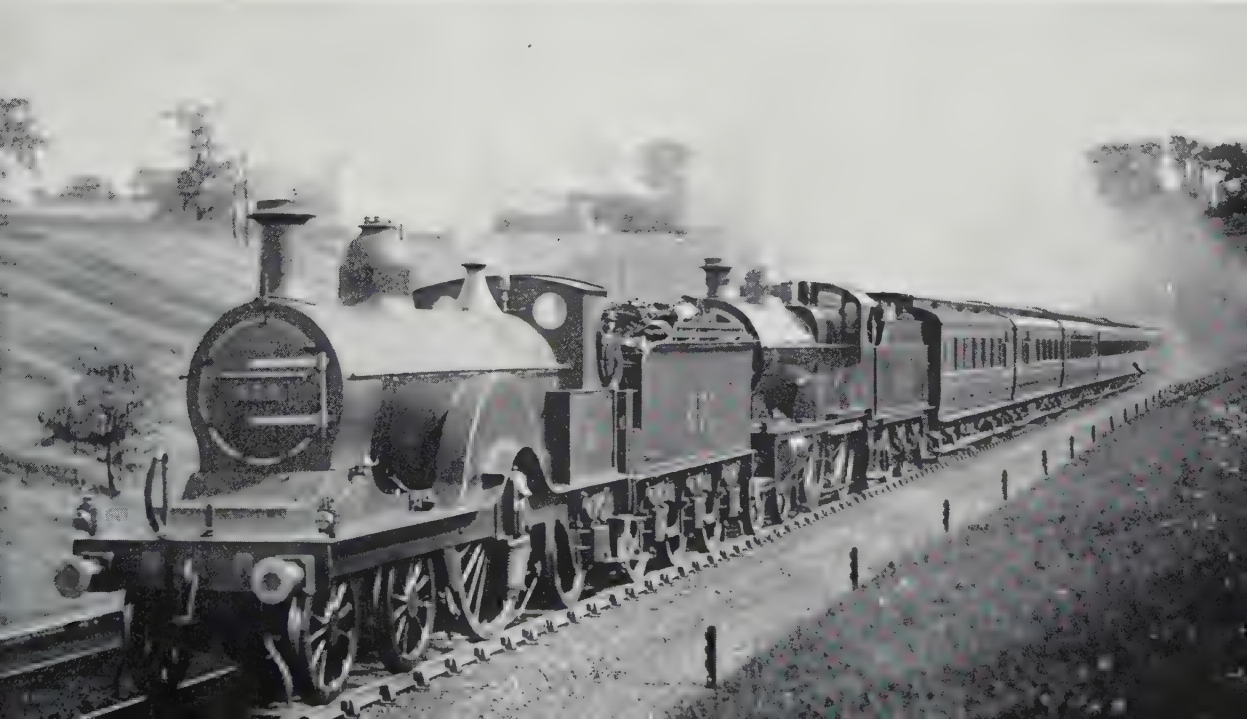


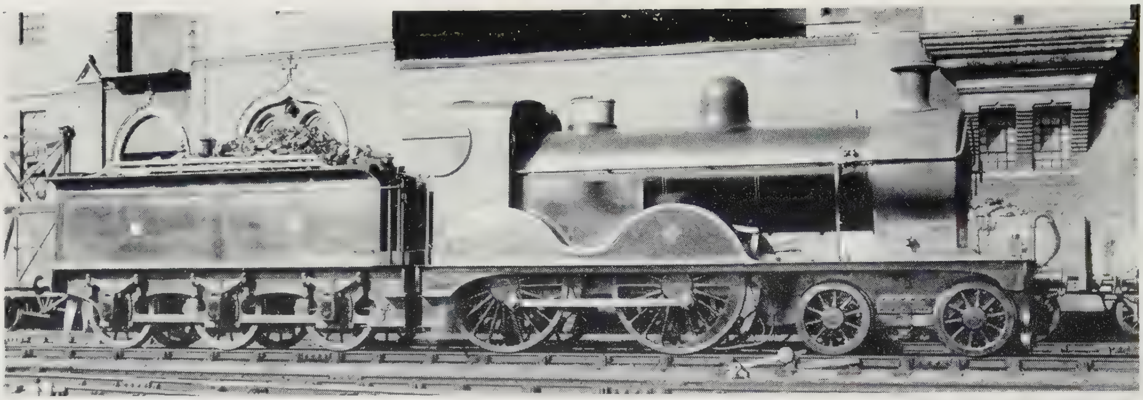
Below: Much of Midland fast passenger work was entrusted to the four-coupled bogie engine, which Johnson had pioneered in England for such traffic. No. 1818 was built in 1888.



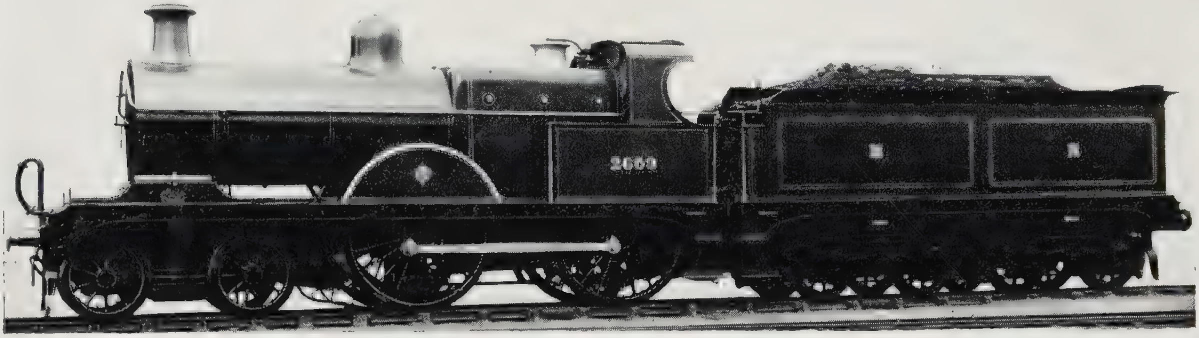


Early twentieth century on the Midland. *Above*, a down stopping train of numerous six-wheelers passes an up goods; the engines are early and late Johnson respectively. *Below*, about 1920, a down express bursts out of Elstree Tunnel behind No. 672 (old No. 117 of 1896) and one of R. M. Deeley's celebrated three-cylinder compounds. The coaches are David Bain's clerestory types, as built down to 1914. Invisible behind the thornbushes (left) are the up and down goods roads with the gently sloped, well-drained cutting side beyond them. *[Below: H. Gordon Tidey*

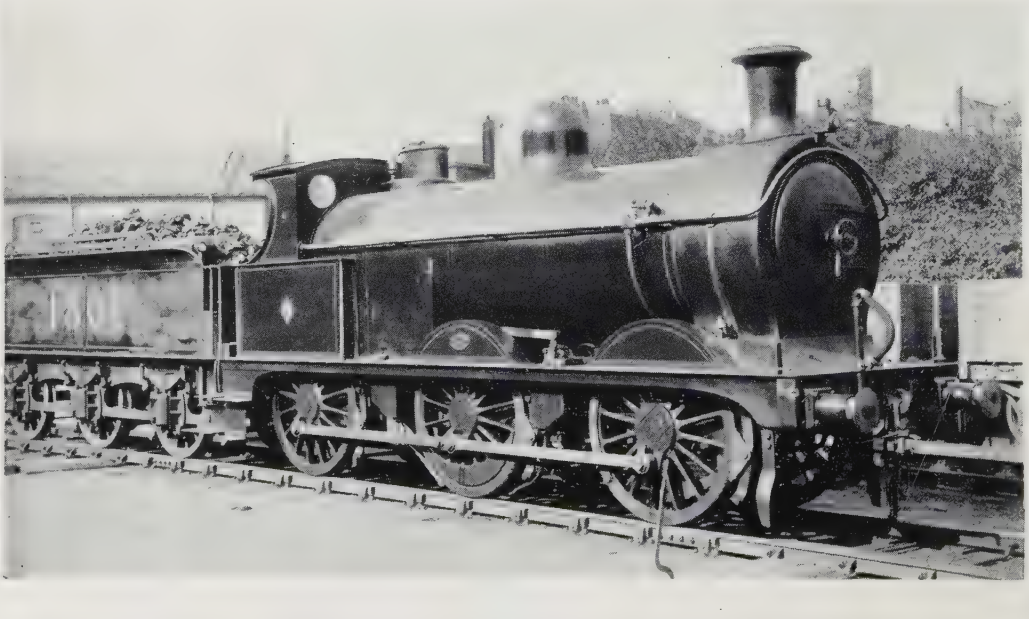


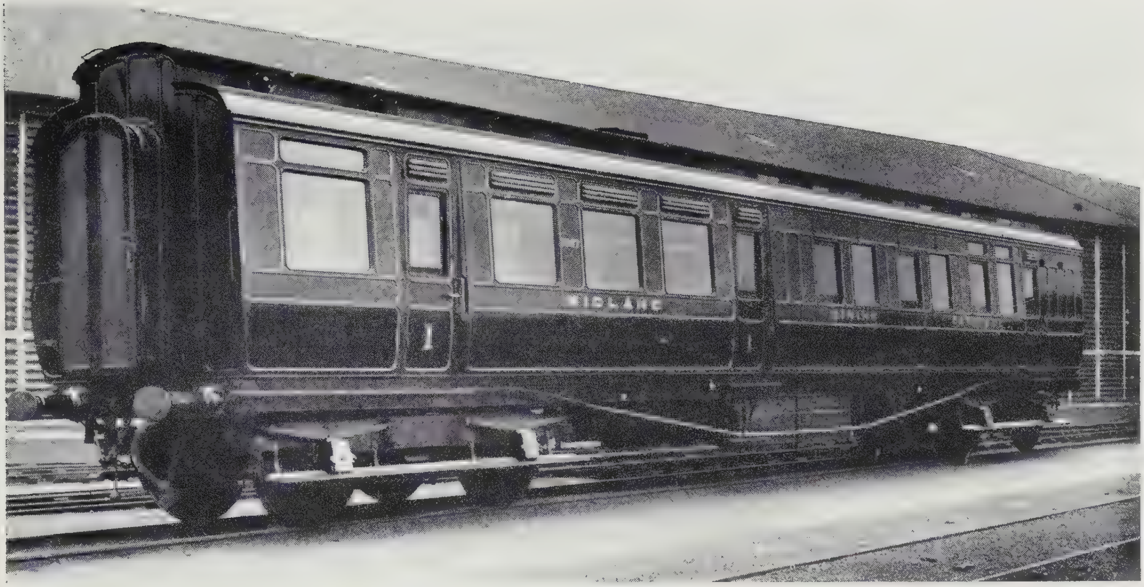


Johnson's later bogie-coupled engines on the Midland. *Above* is No. 14, built in 1891 and rebuilt by Deeley; *below* is Johnson's No. 2609, one of a quintet built in 1900 and introducing the Belpaire firebox to the M.R.



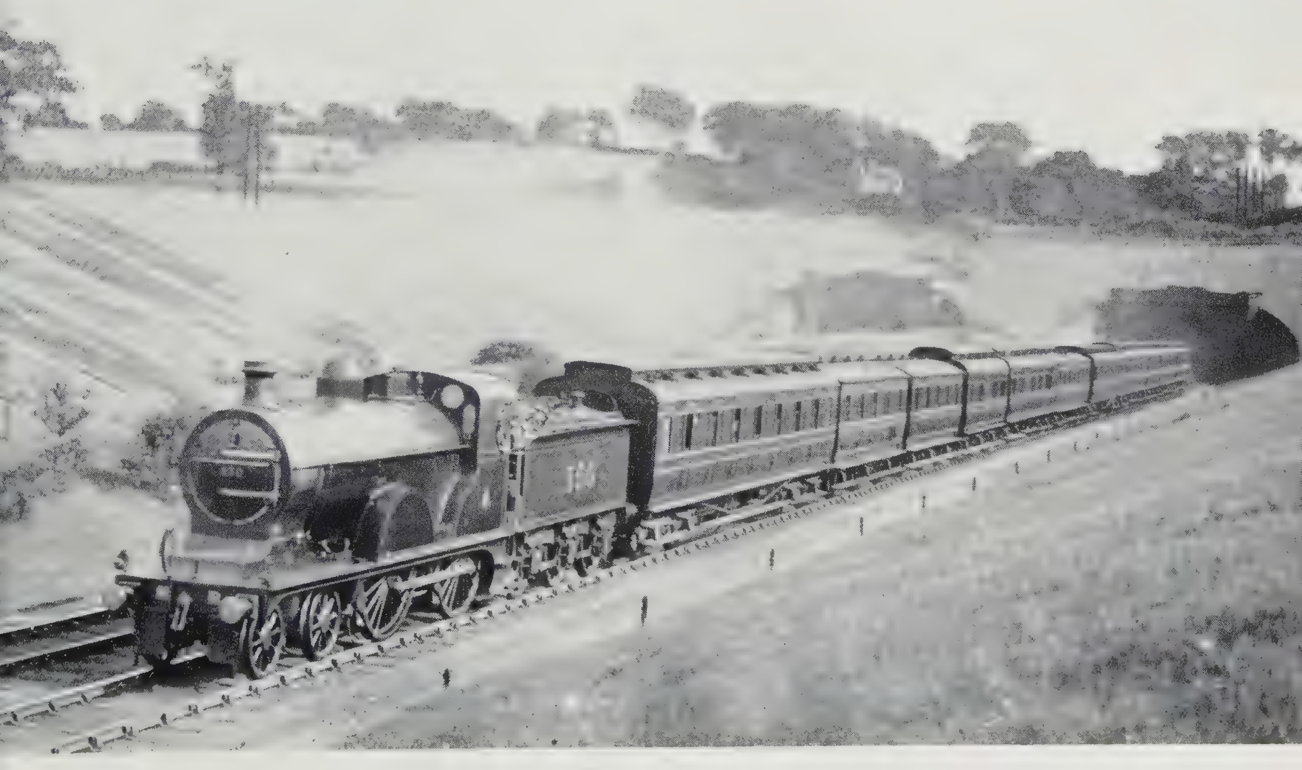
Below: The final form of the Johnson goods engine on the Midland Railway which appeared in 1903 and was perpetuated and later enlarged by R. M. Deeley. As in the top illustration, the large brass safety-valve casing contained two distinct mountings, a pair of Ramsbottom columns and an independent lock-up valve.

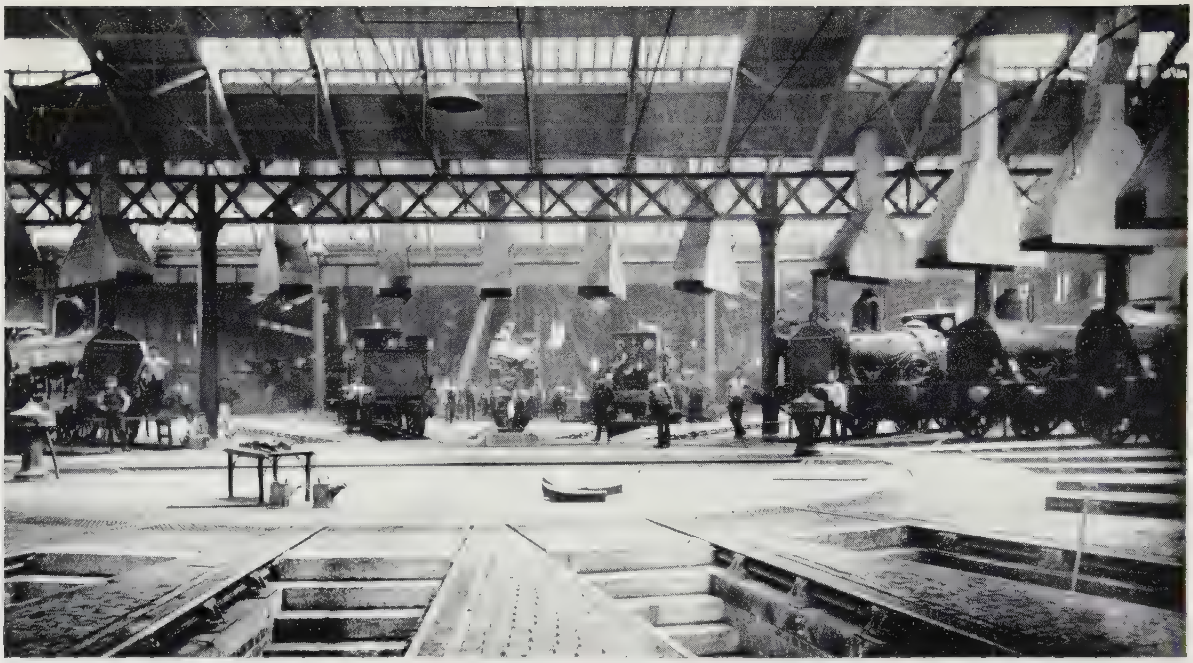




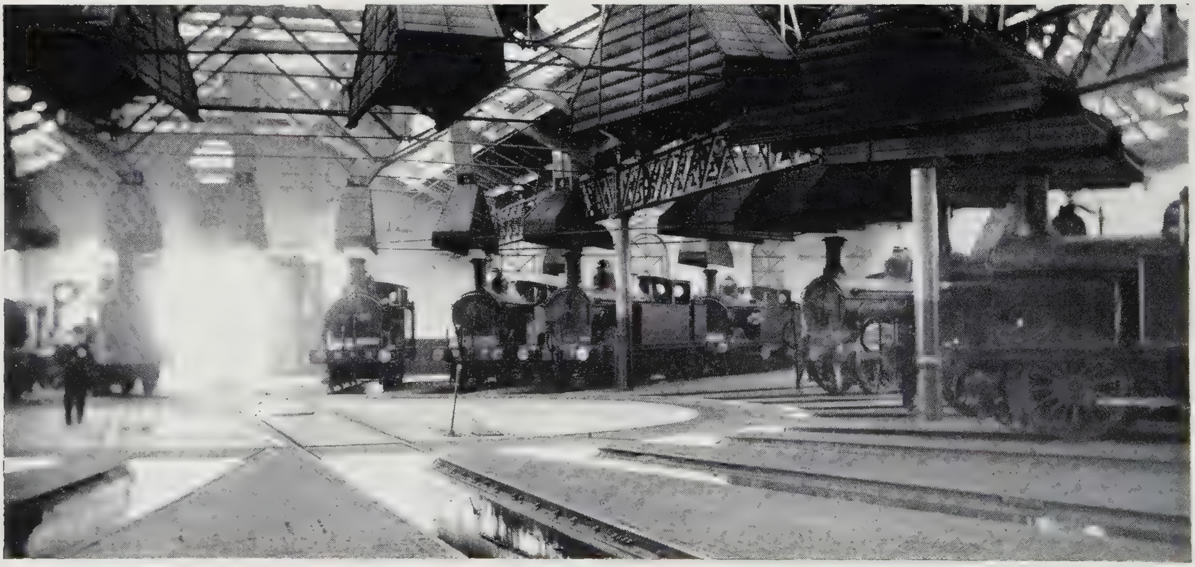
While the *lower* view shows a rebuilt Johnson engine, No. 550, these are mainly of coaching interest. *Above* is a first-class diner by David Bain, about 1910, with much of its length occupied by kitchen. *Below* is a very mixed bag including, from the tender, a Bain corridor third-class of 1907, two Clayton thirds of the 'eighties, a Clayton lavatory-first of the 'nineties, a Clayton bogie lavatory composite of the same period, and a Clayton-Bain mixture thereafter. It made up a typical Midland semi-fast. More can be seen this time of the two Elstree Tunnels.

[*Below: H. Gordon Tidey*

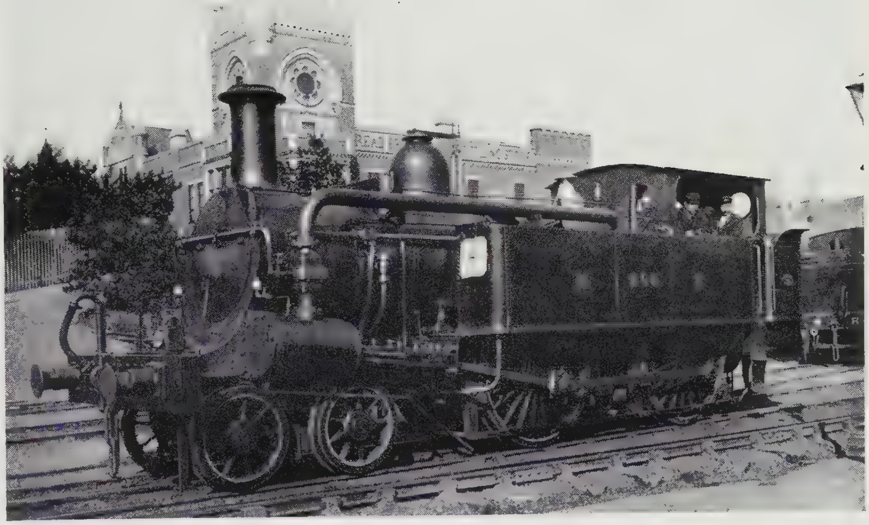




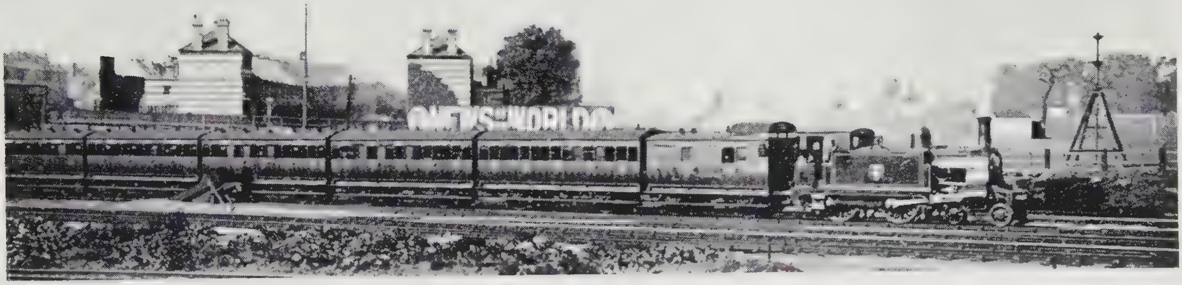
Midland shed interiors. Both are from S. W. Johnson's days, but the *upper* one is much the earlier and shows exclusively Kirtley locomotives, some in original condition and some with minor Johnson modifications (*e.g.* the bellmouth tops to the domes on the right). The time is in the early 'seventies. In the *lower* view, just visible on the right, is one of Johnson's little tank engines for transfer goods, forerunner of the 'Jinties', with a depressed dome and the spring balances set on each side instead of in rear.

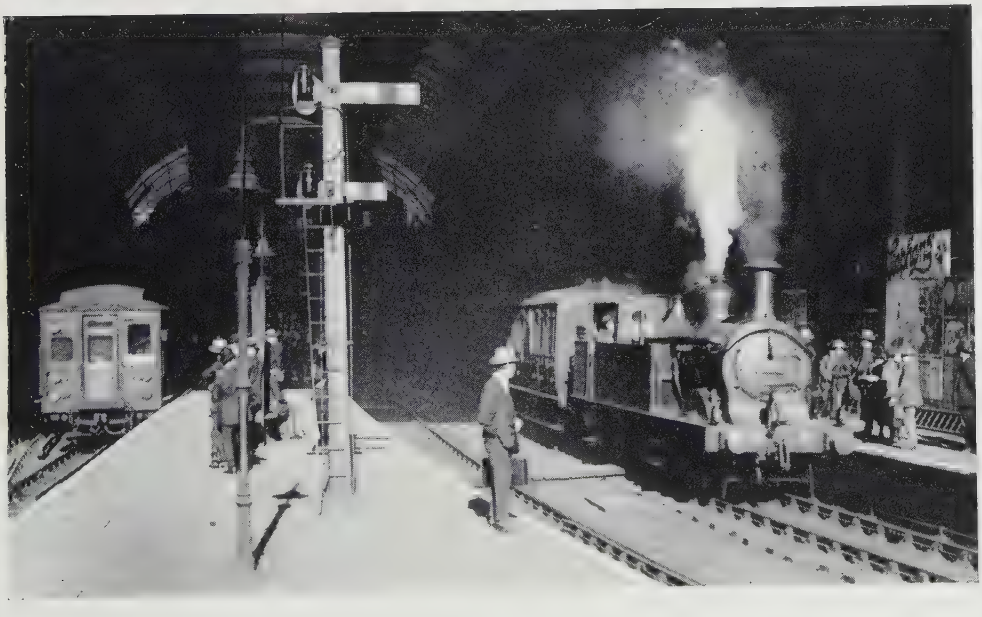


Right: Several railways adopted the Metropolitan type 4-4-0 condensing engine for special duties, and this was the Midland variety, used for working through the tunnels, under St Pancras Station, and on to the Metropolitan Widened Lines for Moorgate. The scene is at Kentish Town, with its handsome brewery.

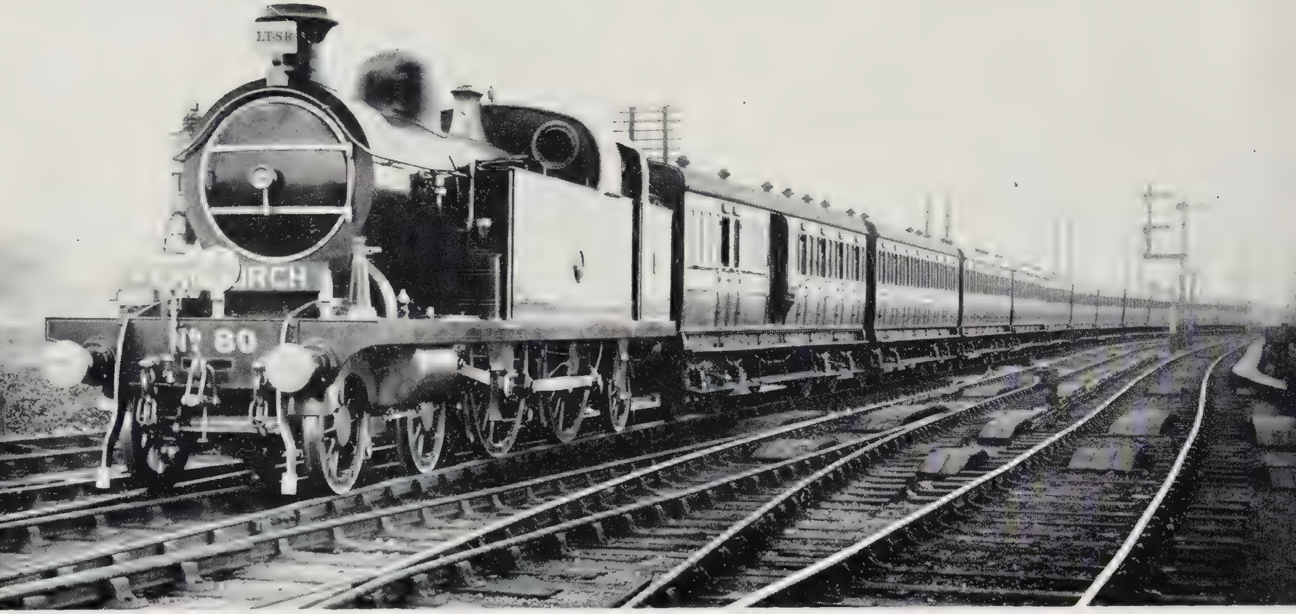


Below: North London Railway. In the late eighteen-sixties, William Adams, later of the Great Eastern and the South Western, produced a standard train. It changed little thereafter. The conveyance was picturesque, but Spartan.

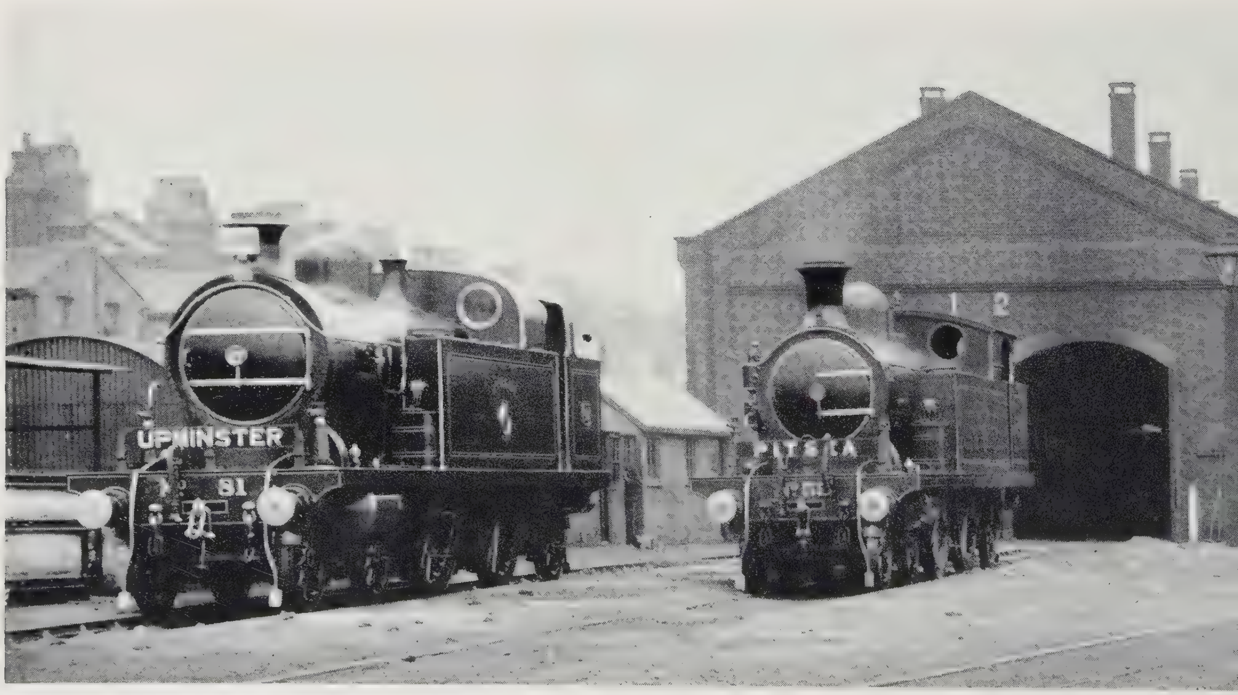


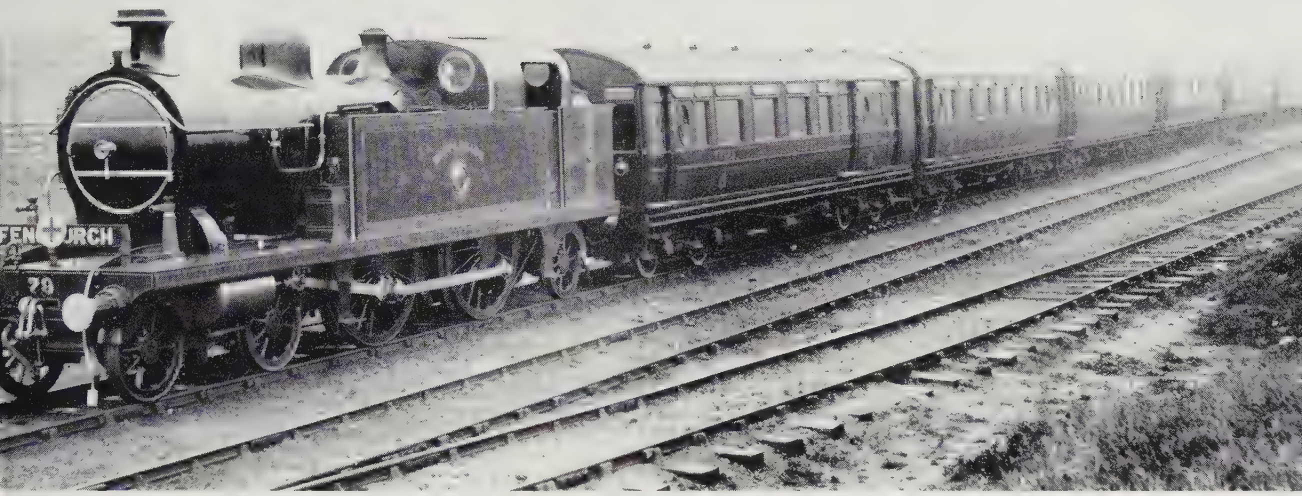


Left: Another aspect of London local traffic, at Aldersgate, with a Midland train from Moorgate to East Ham and a District train on the Inner Circle.



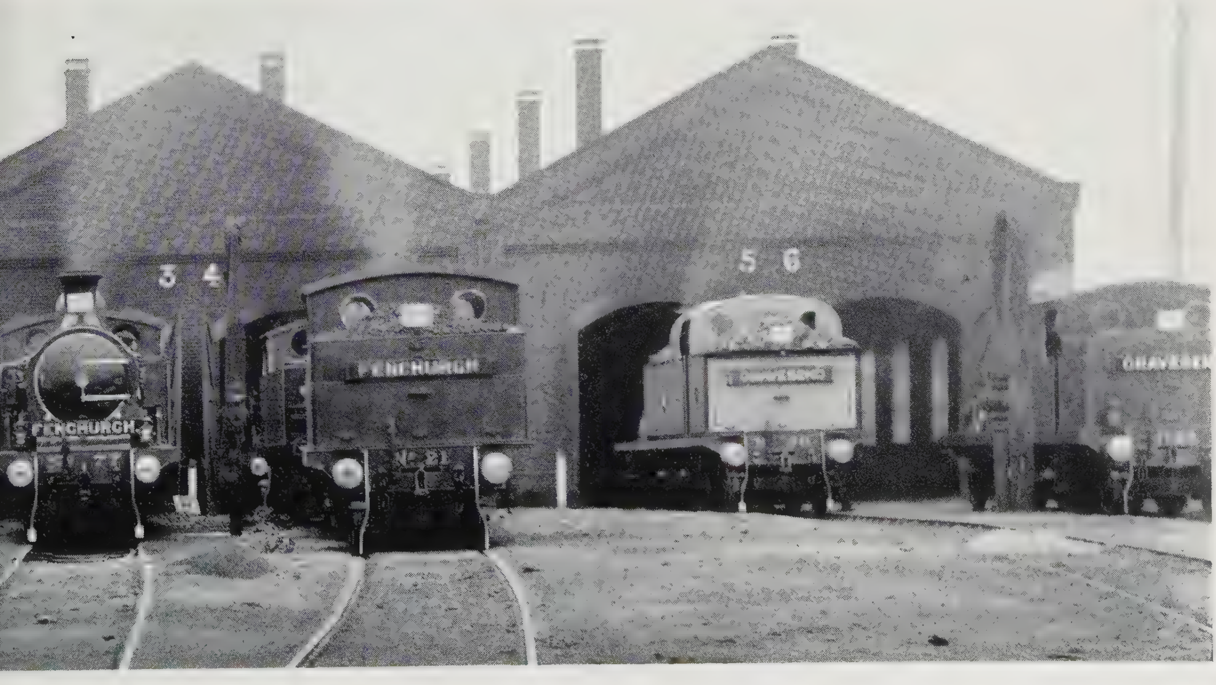
Thirteen coaches made up a peak-hour business train on the London, Tilbury & Southend Railway, and they would be headed by one of the larger 4-4-2 express tank engines, the basic design of which, developed by Thomas Whitelegg, went back to an anonymous design made by William Adams in 1879. This is No. 80, *Thundersley*.

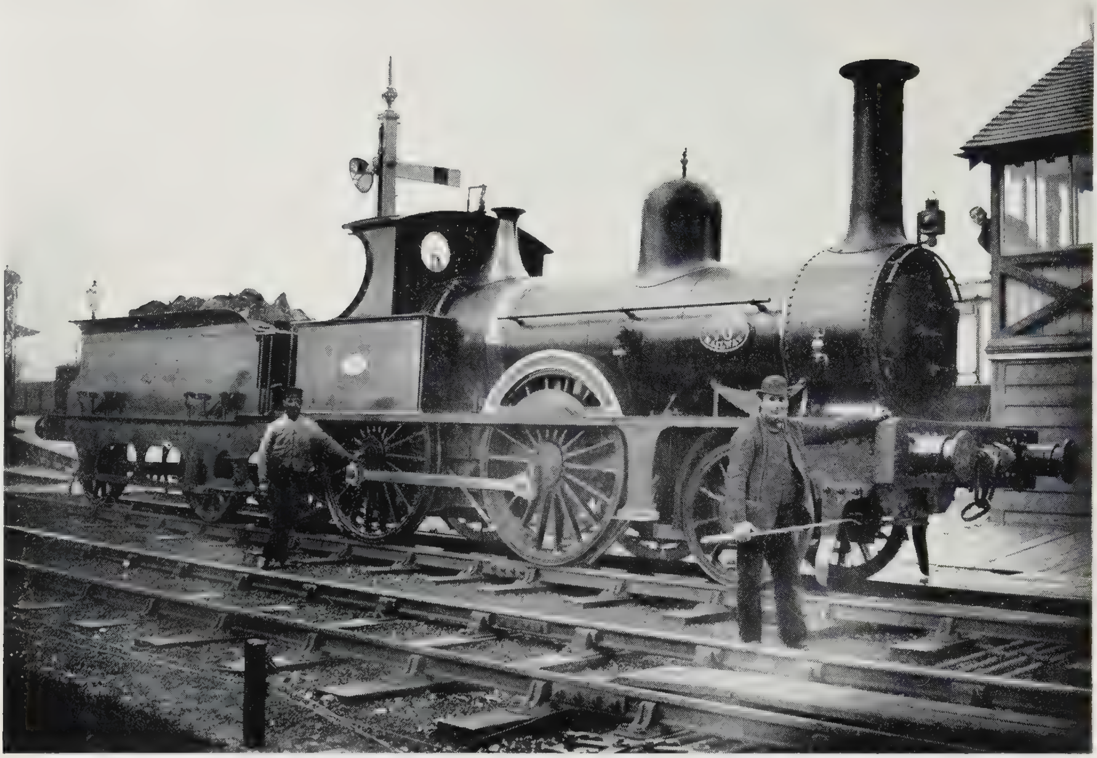




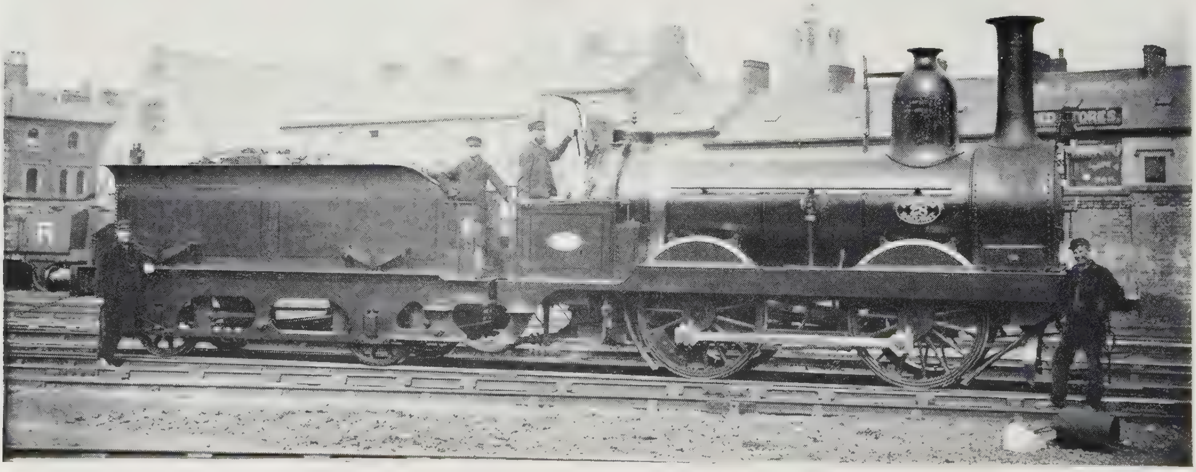
L. T. & S. No. 79 *Rippleside*, here painted in the standard green, heads the vestibuled carriages built specially for through service between Southend and Ealing, via the District Railway. Highly decorated, they were in our experience sumptuously uncomfortable.

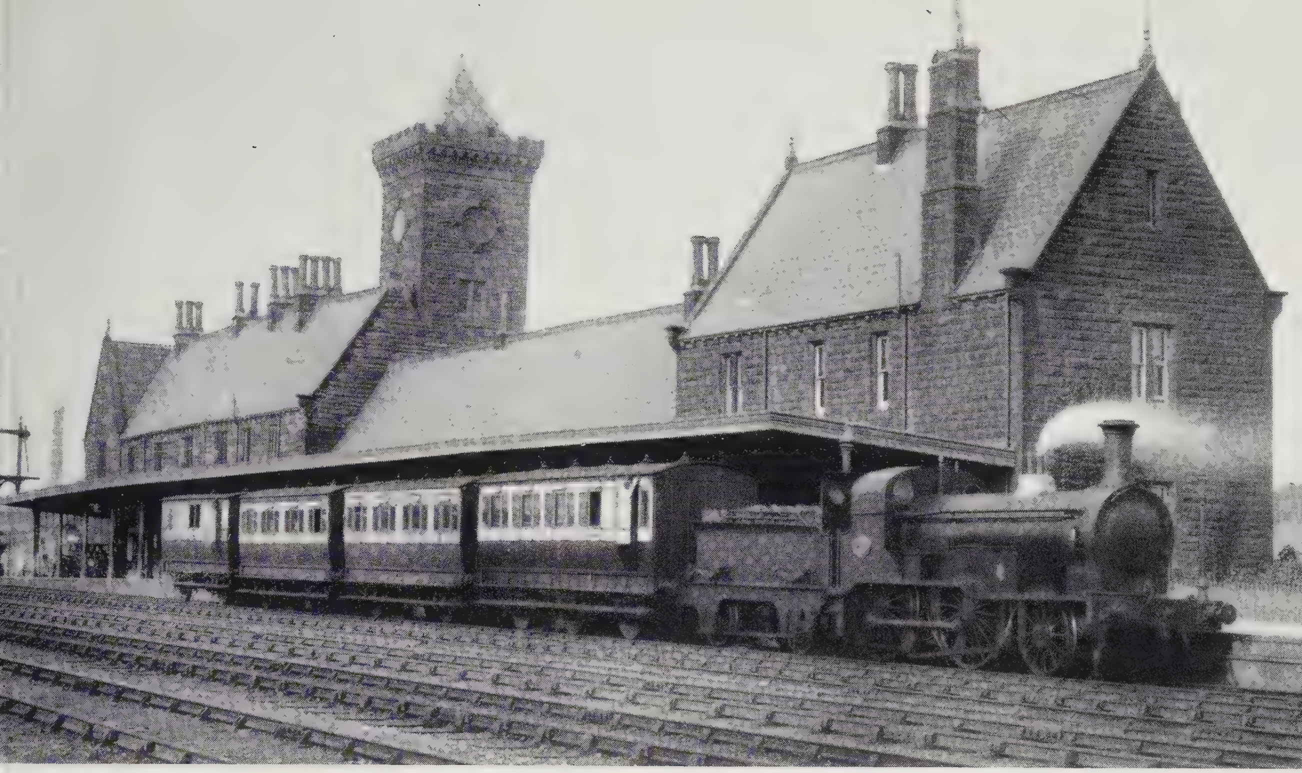
Plaistow Shed, London, Tilbury & Southend Railway, about 1912. Engines, left to right, are Nos. 81 *Aveley* (1909), 59 *Holloway Road* (1900), 77 *Fobbing* (1908), 21 *Upminster* (1884), 79 *Rippleside* (1909) and 29 *Stepney* (1884). We are unfortunately unable to identify the engine behind *Upminster* but she appears to be of the same series. *Rippleside* is painted in lavender grey instead of the more usual green. Several engines were so treated.



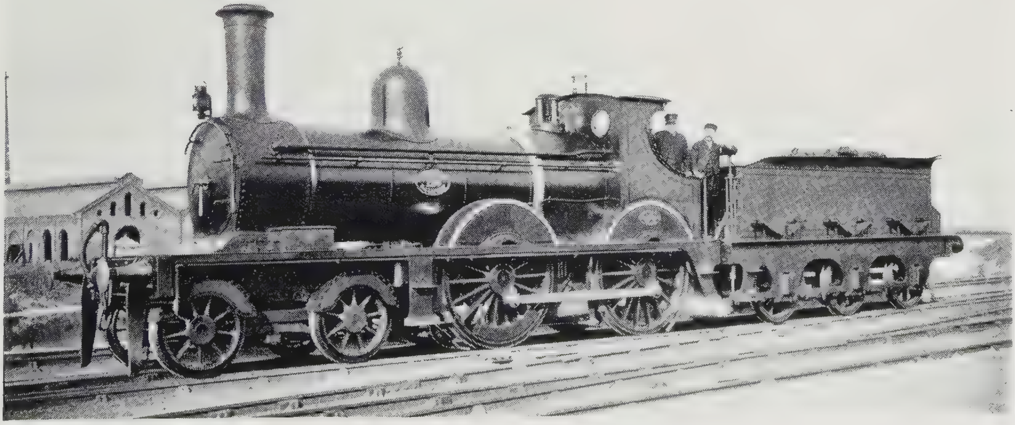


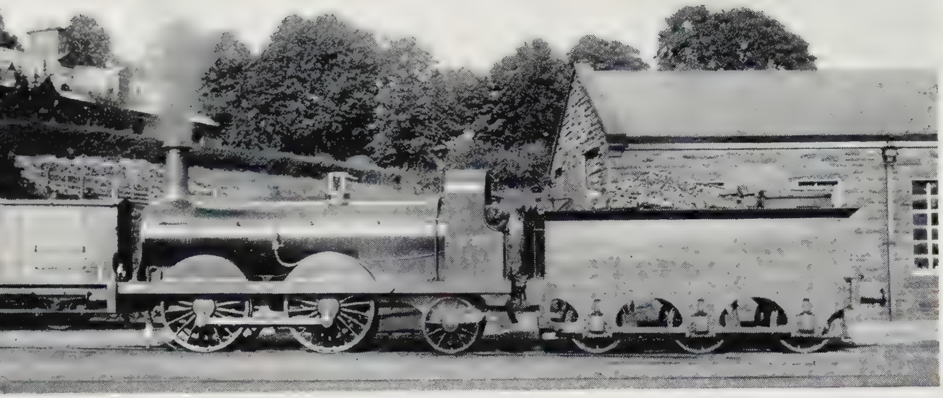
All sorts of things were to be seen on the Furness Railway, and even late in the last century they more than bordered on the archaic. Both these locomotives were built by Sharp, Stewart & Company. The 2-4-0, though undersized, is fairly normal. One saw her sisters in Wales and Sweden among other places. The 0-4-0 goods had affinities with an even more ancient Bury type, of which *Coppernob* has survived. The type was, however, extremely useful for shunting in and out of works sidings. It could go anywhere.



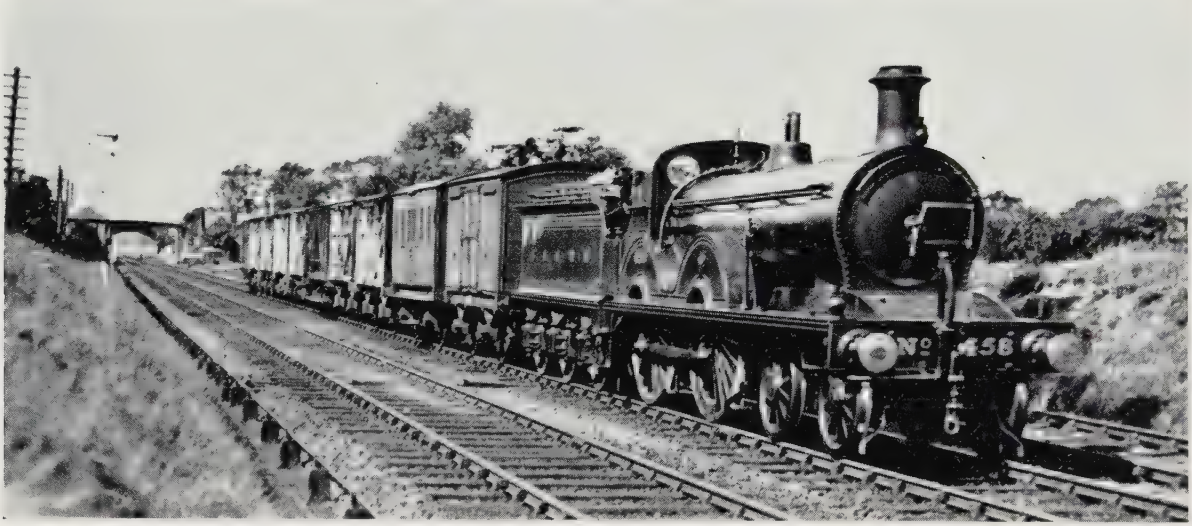


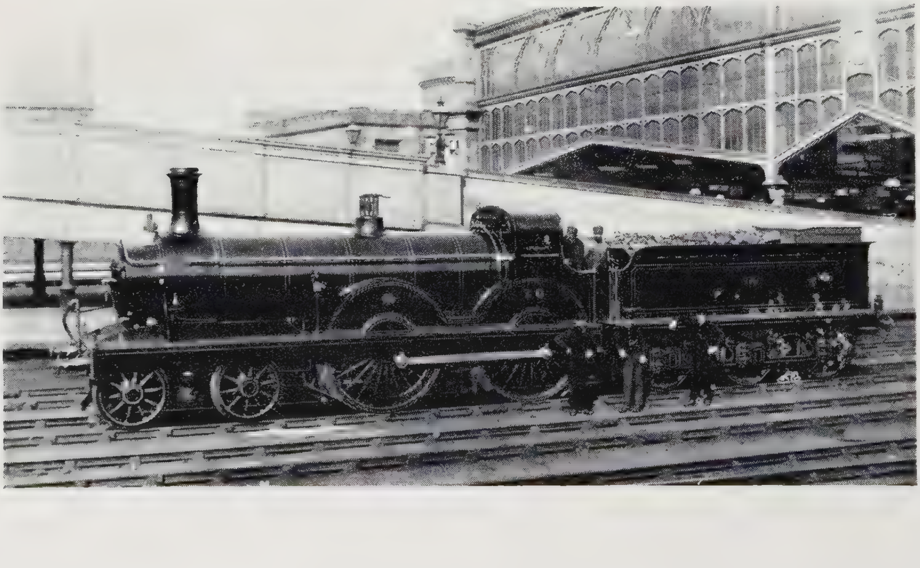
More from the North-West. *Above* is Maryport station, headquarters of the Maryport & Carlisle Railway. A very modest train is headed by No. R1, old No. 19, built by the company in 1867. She ran until 1914, and contrary to appearances, neither the Stirlings nor Hugh Smellie had anything to do with her origin. The boiler was a later one by Campbell. *Below* is one of the standard Sharp Stewart bogie passenger engines built for the Furness Railway in 1890. The design was old; it had appeared on the Cambrian Railways as far back as 1878.



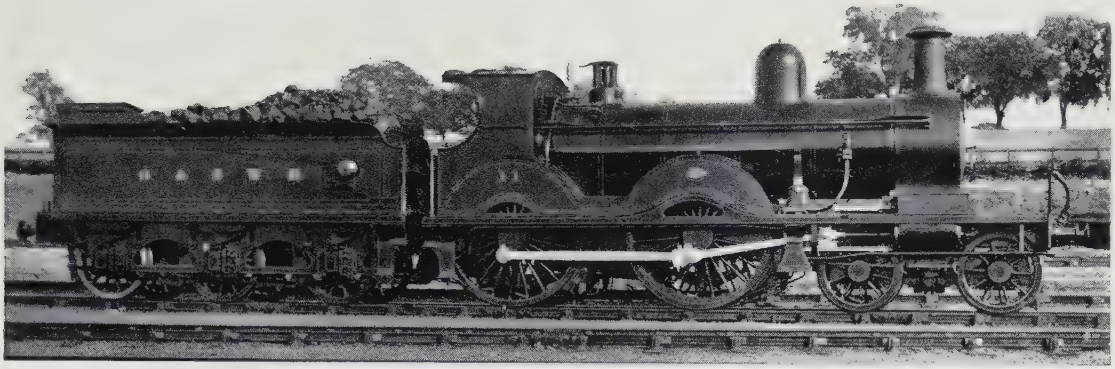


Right up to 1930, Dumfries was a first-rate place for finding old Glasgow & South Western engines. The Stirling 0-4-2 mixed-traffics were still there, though the above photograph was taken many years earlier. No. 270's boiler is an addition by Hugh Smellie (whose name rhymed with Wylye).

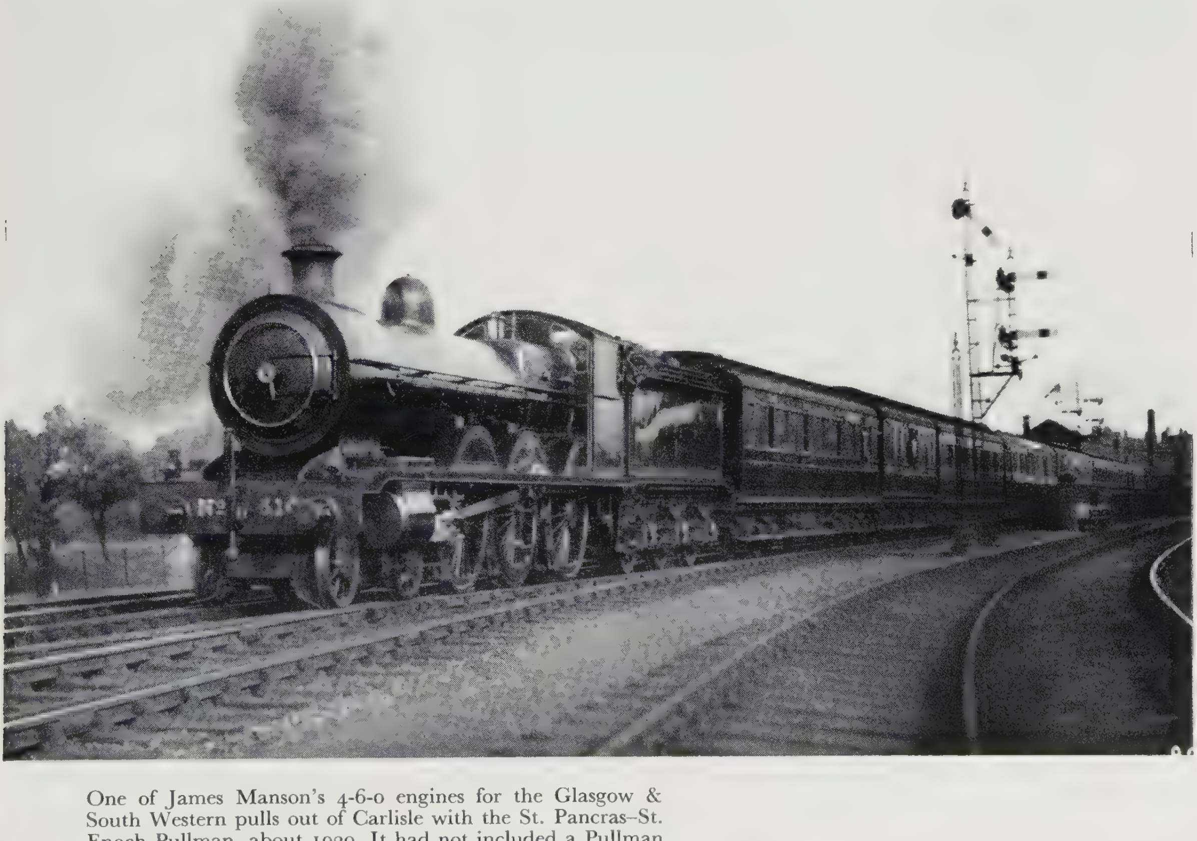




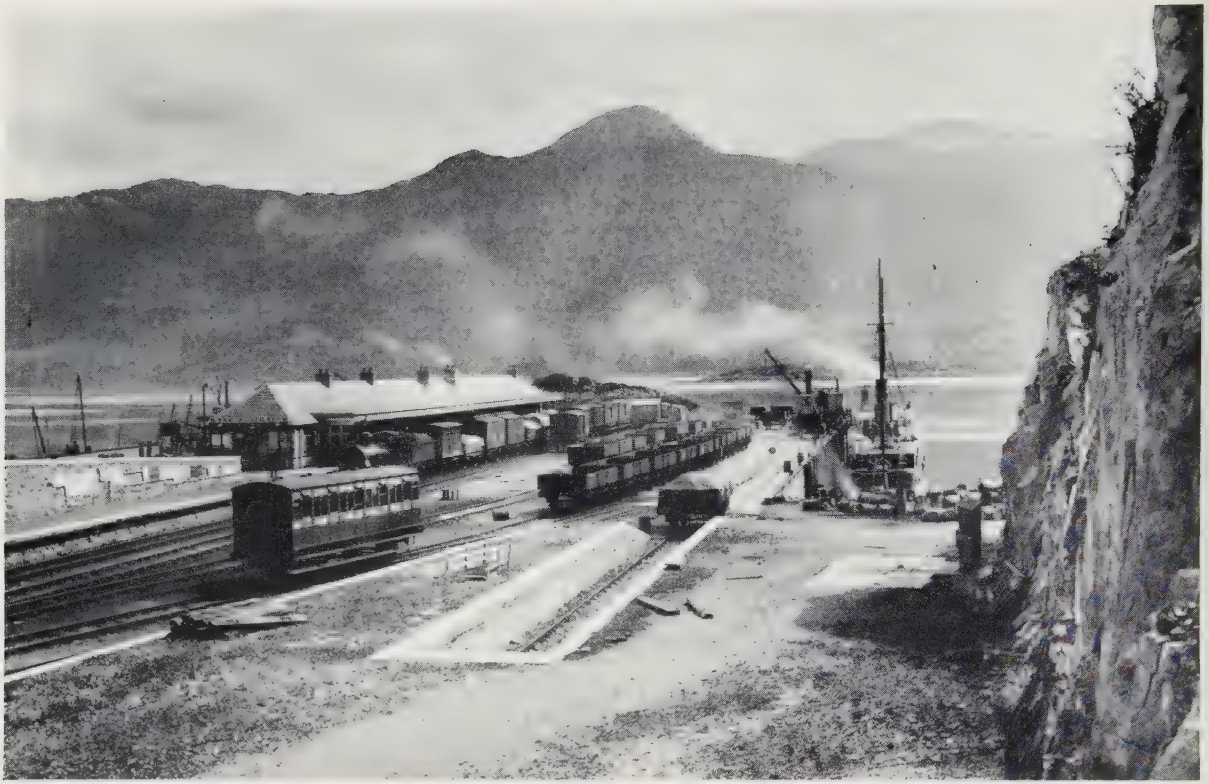
Hugh Smellie's Big Bogies. They worked the Pullmans and many other Glasgow & South Western express trains until the middle eighteen-nineties. No. 70 at Carlisle (*left*) has an unfortunate-looking extended smokebox; No. 458, hauling cattle near Rockliffe (*above*), has acquired a Drummond chimney.



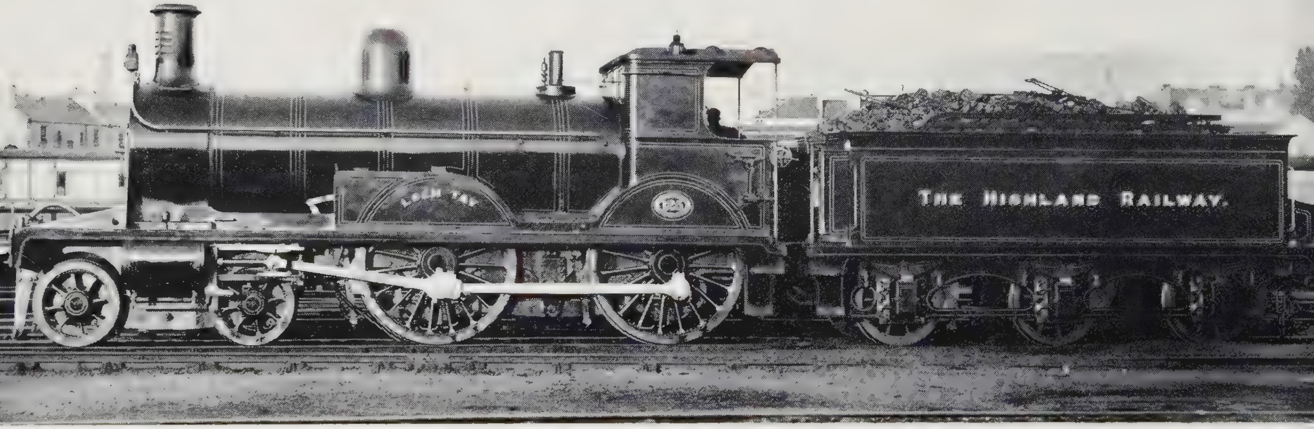
The year 1897 saw the advent of the first three British four-cylinder simple express engines. This was James Manson's famous No. 11 on the Glasgow & South Western, a lovely engine, but sadly underboilered. Peter Drummond later put on a larger Manson boiler, then in 1922 R. H. Whitelegg rebuilt her with a much larger Drummond boiler with which she successfully worked until she wore out.

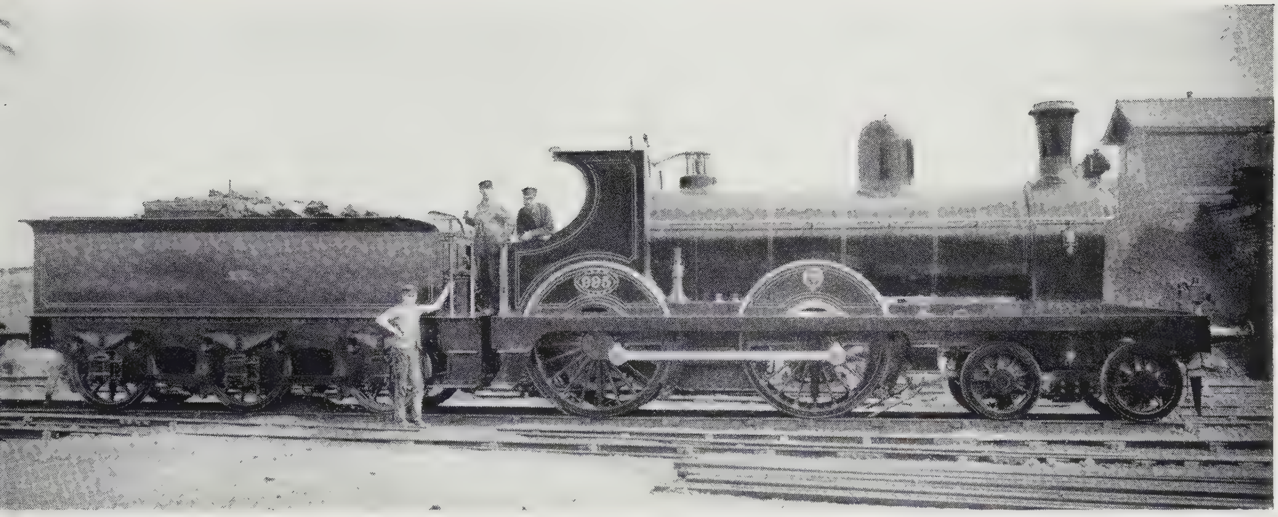


One of James Manson's 4-6-0 engines for the Glasgow & South Western pulls out of Carlisle with the St. Pancras–St. Enoch Pullman, about 1920. It had not included a Pullman car for very many years, but the name stuck, as it did to Midland–Scotch expresses on the neighbouring N.B.R.

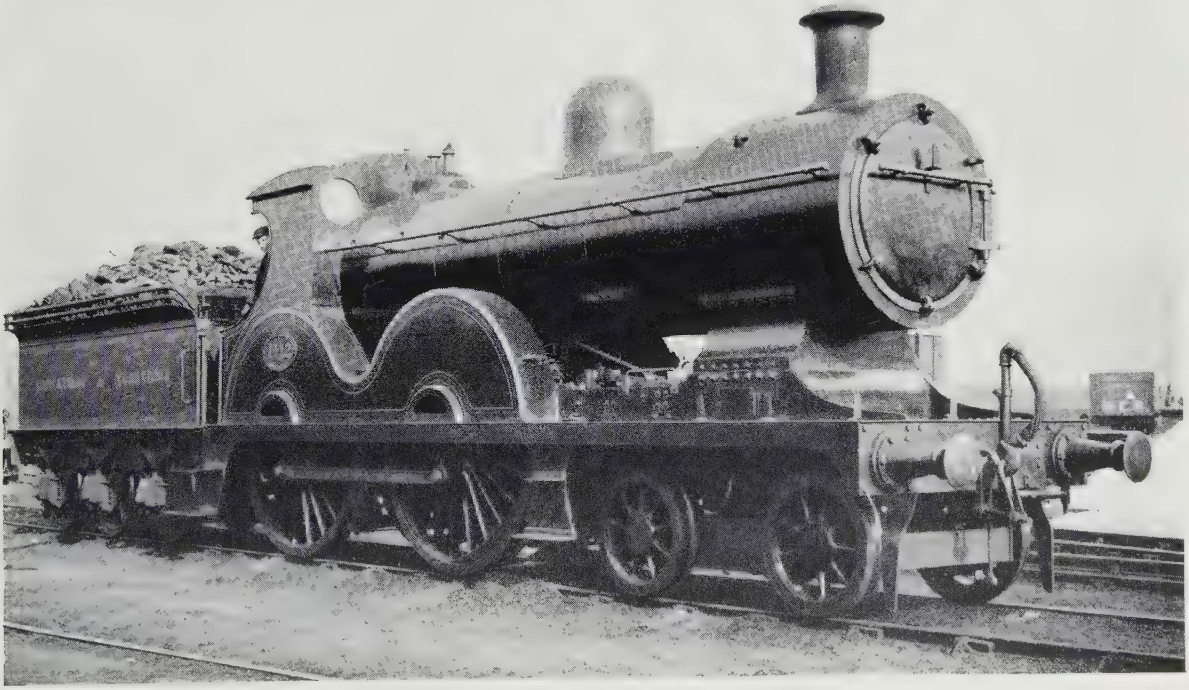


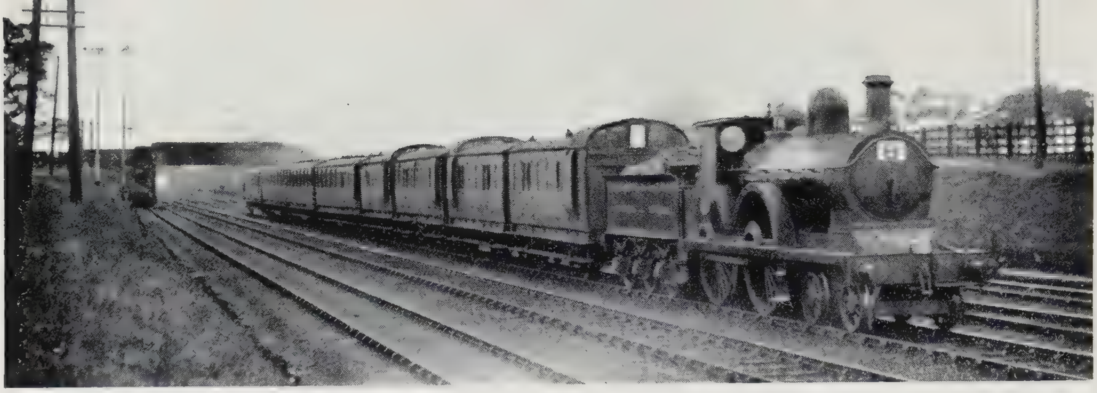
Except for mechanical and coaching equipment, the Highland line has not changed with the years. *Above* are the Kyle of Lochalsh station and jetty, the springboard for the Isles, about 1900. A Jones Skye Bogie lurks beyond the grim-looking, oil-lit six-wheeler. *Below*, outside the Highland shed at Perth, is David Jones' *Loch Tay*, built in 1896. The class was to be seen piloting on express trains until well into L.M.S. days.



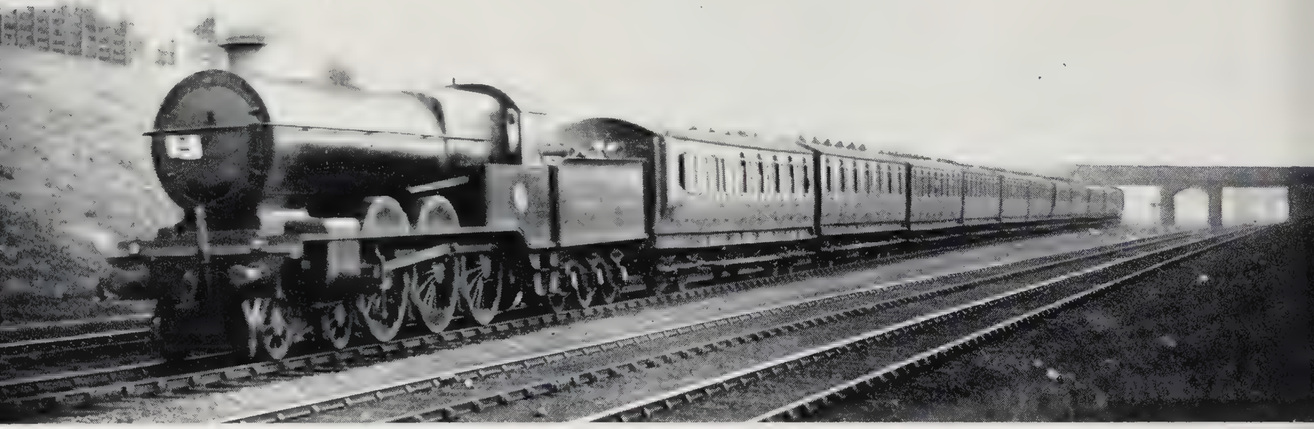


Down to the middle 'eighties of last century, all the best work on the Lancashire & Yorkshire Railway was done by W. Barton Wright's engines, as successors of the most antediluvian locomotive stock any British main line possessed. One is shown *above*, and *below* is Sir John Aspinall's No. 1112, with 7 ft. 3 in. coupled wheels. This class first appeared in 1891; No. 1112 was rebuilt in 1908 with the high-pitched boiler and saddled, extended smokebox shown; invisible additions were the superheater and piston valves with Walschaerts gear – in short, it was practically a new engine.

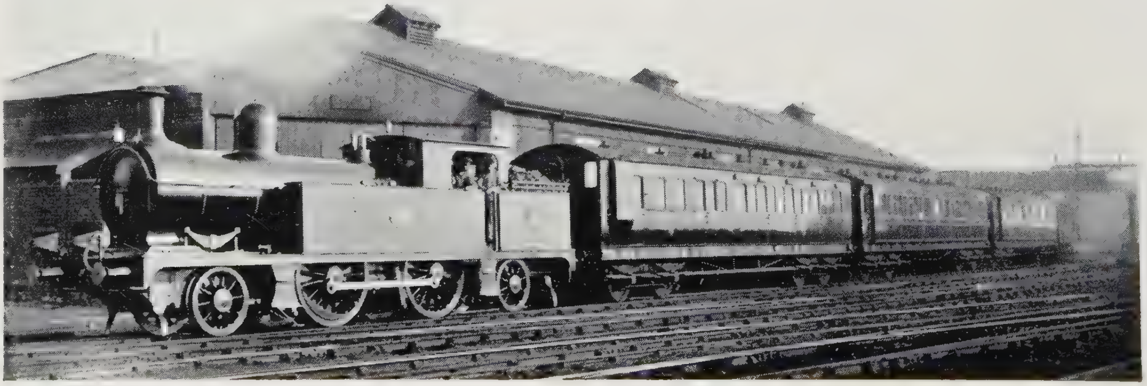


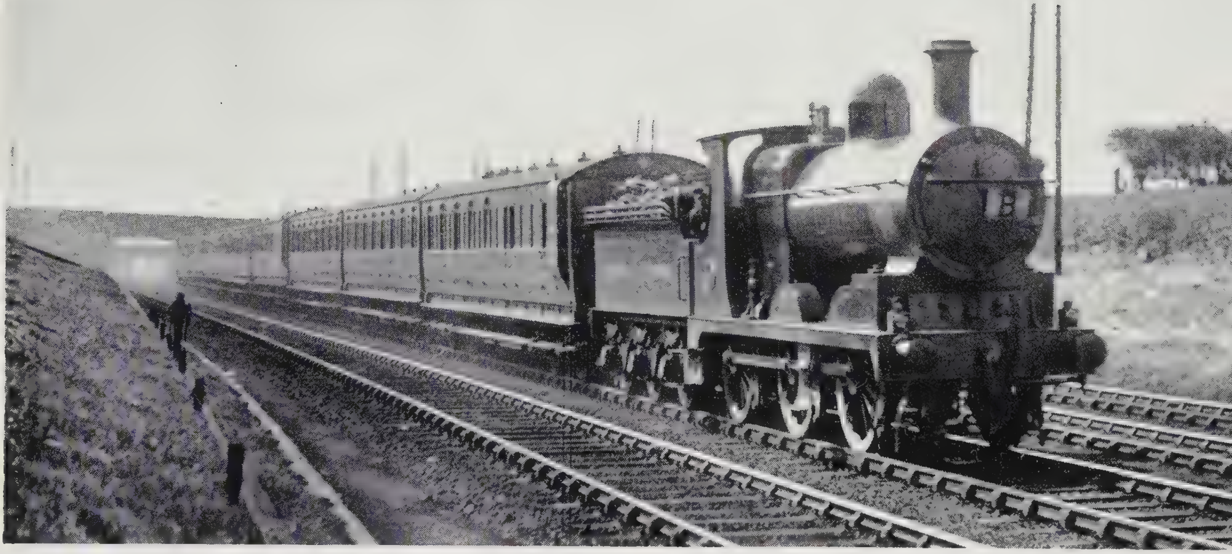


One of Aspinall's 7 ft. 3 in. coupled engines in her original form heads a Lancashire & Yorkshire train, leading off with a fine assortment of Barton Wright's birdcages. [*H. Gordon Tidey*



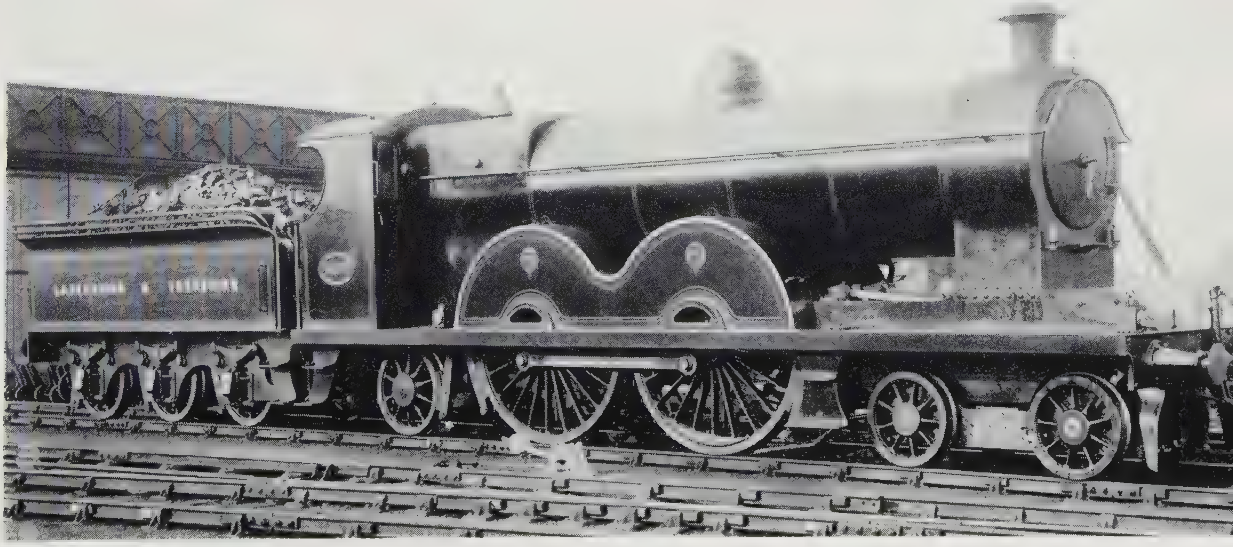
Variety on the L. & Y. main line. In the *middle* view, a Hughes 4-6-0 heads for Blackpool with an eleven-coach train, amid a soft drift of smoke. *Below*, and looking much cleaner, is one of Sir John Aspinall's famous 2-4-2 tank engines, which could be seen on anything from a very ordinary local to a fast express, very smartly timed, over a difficult road.

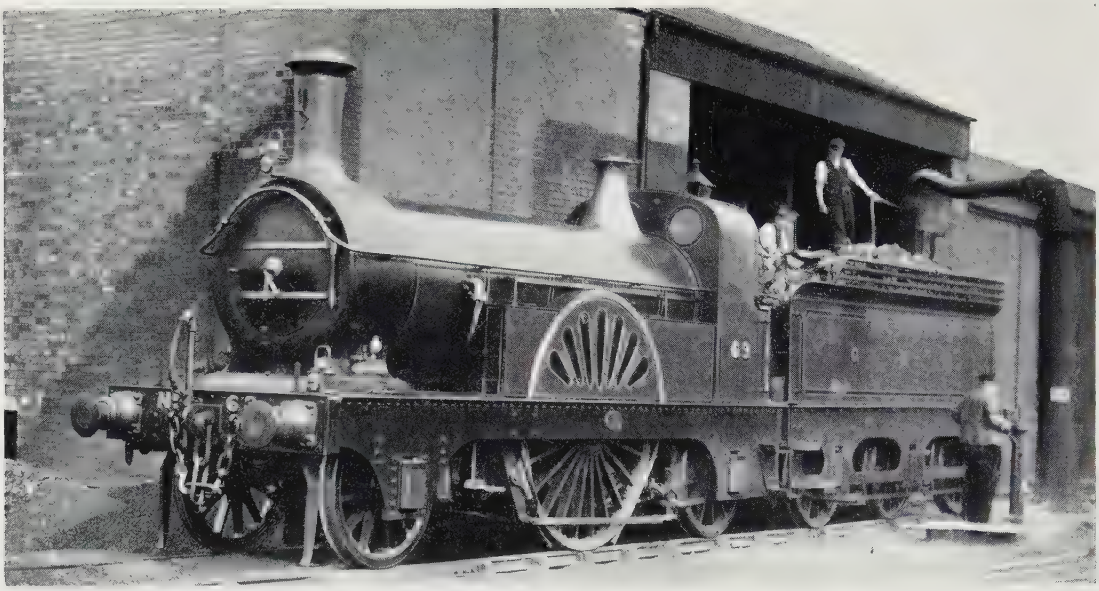




Nor did a goods engine come amiss on a fast Blackpool train of the L. & Y., especially during the Wakes. *Below*, Sir John Aspinall's famous 4-4-2 express engines of 1899 scarcely need comment, even for those who never knew the L. & Y. A development of the 7 ft. 3 in. 4-4-0 engines previously illustrated, they were, on their appearance, easily the largest locomotives in Great Britain, and among the largest passenger engines in Europe.

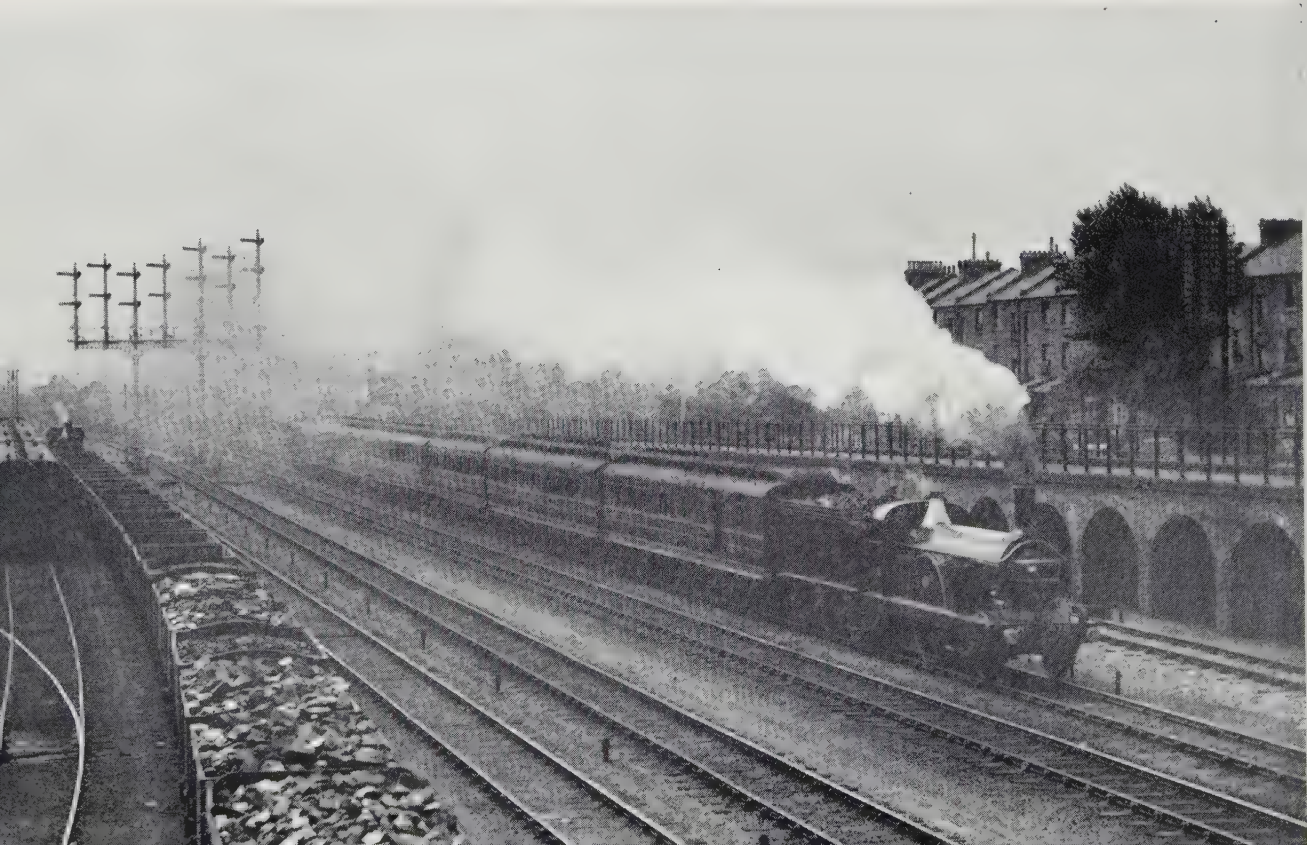
[*Above: H. Gordon Tidey*



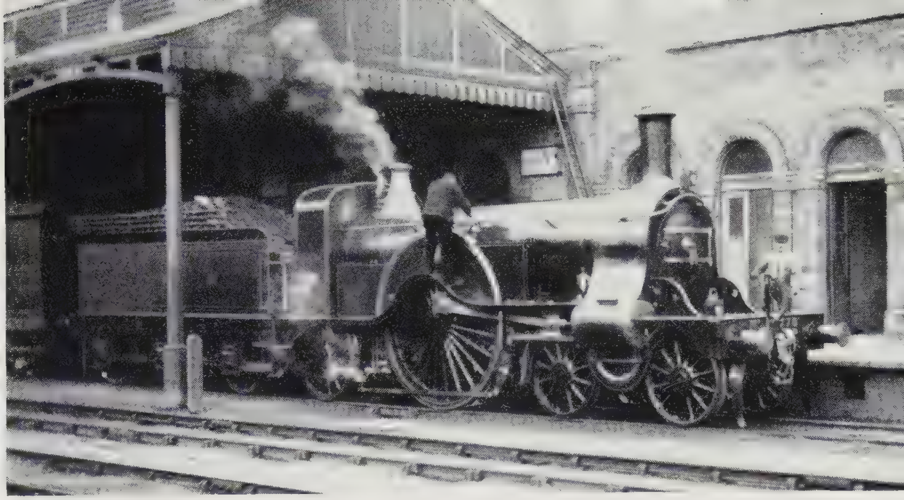


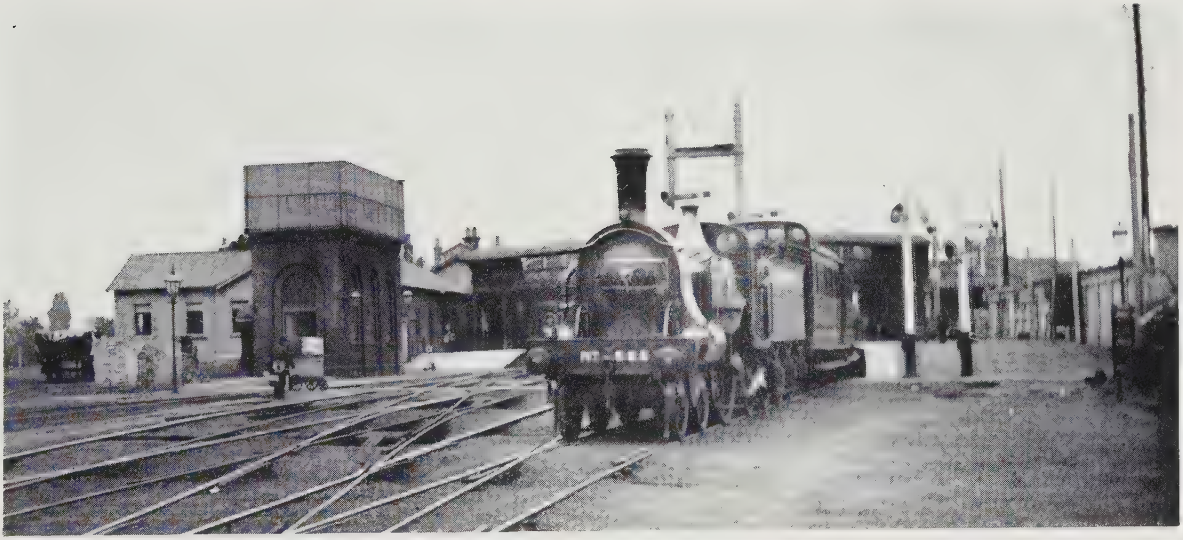
Above: Great Northern 7 ft. single express engine No. 63, built by Patrick Stirling in 1869.

Below: North of Finsbury Park: the 9.45 a.m. Leeds luncheon car express, hauled by Stirling 2-2-2 No. 872, passing an up coal train.

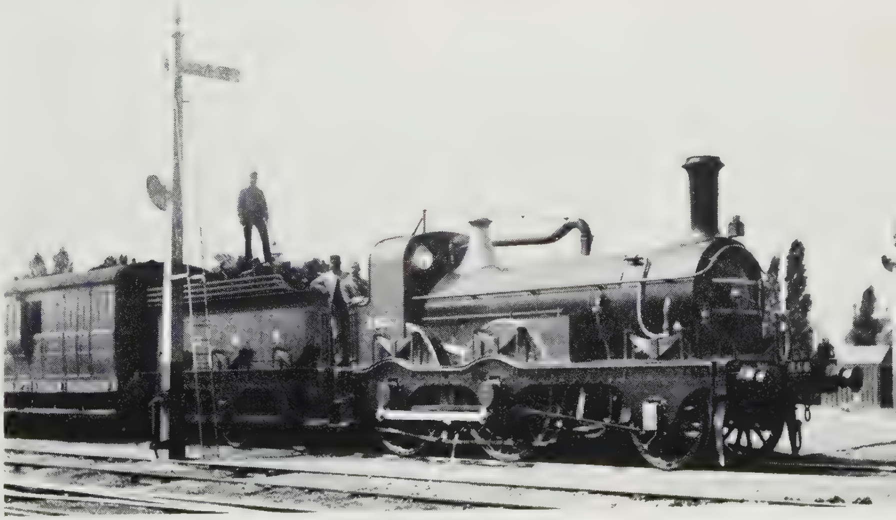


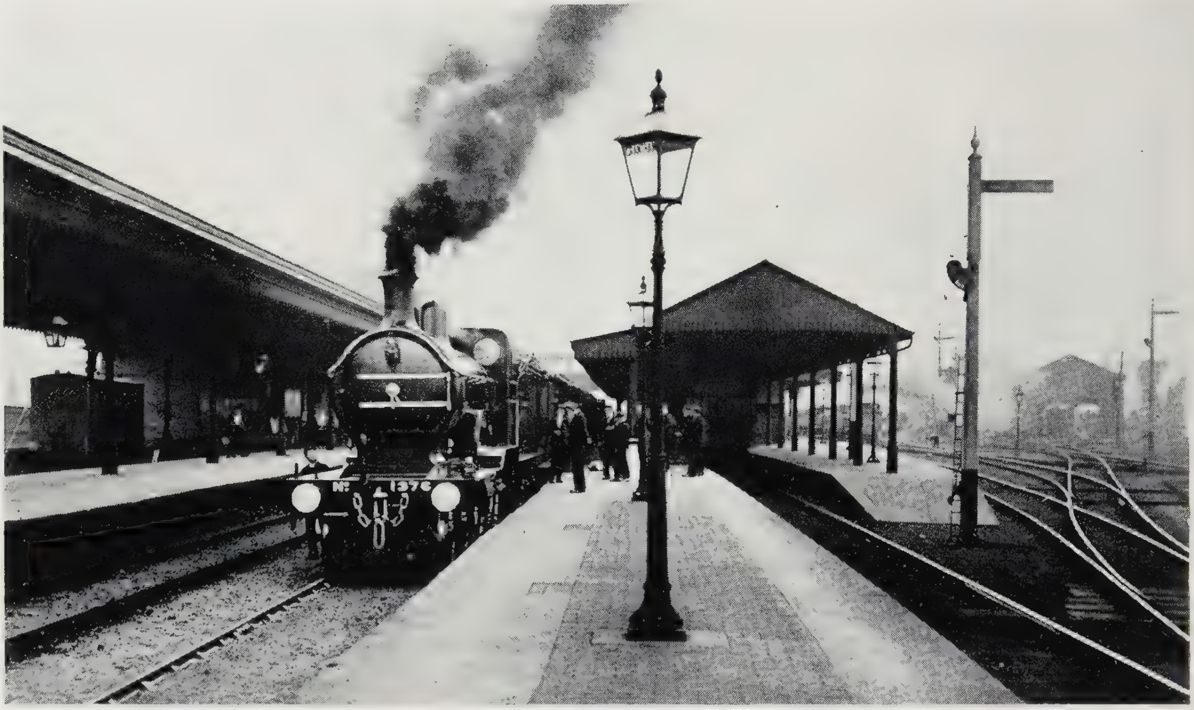
On the Great Northern, Patrick Stirling's 8 ft. single express engines had served for so long that it was hard to believe that they were on their way out with the passing of the old century. They lingered in Lincolnshire, and on the Cambridge trains. No. 778 (*right*) is on an up train at Hatfield; No. 665 (*below*) pulls out of Boston.





From the pre-Stirling era on the Great Northern. A Sturrock 6 ft. 2-4-0, reboilered by Patrick Stirling, in local service between Hitchin and Kings Cross.

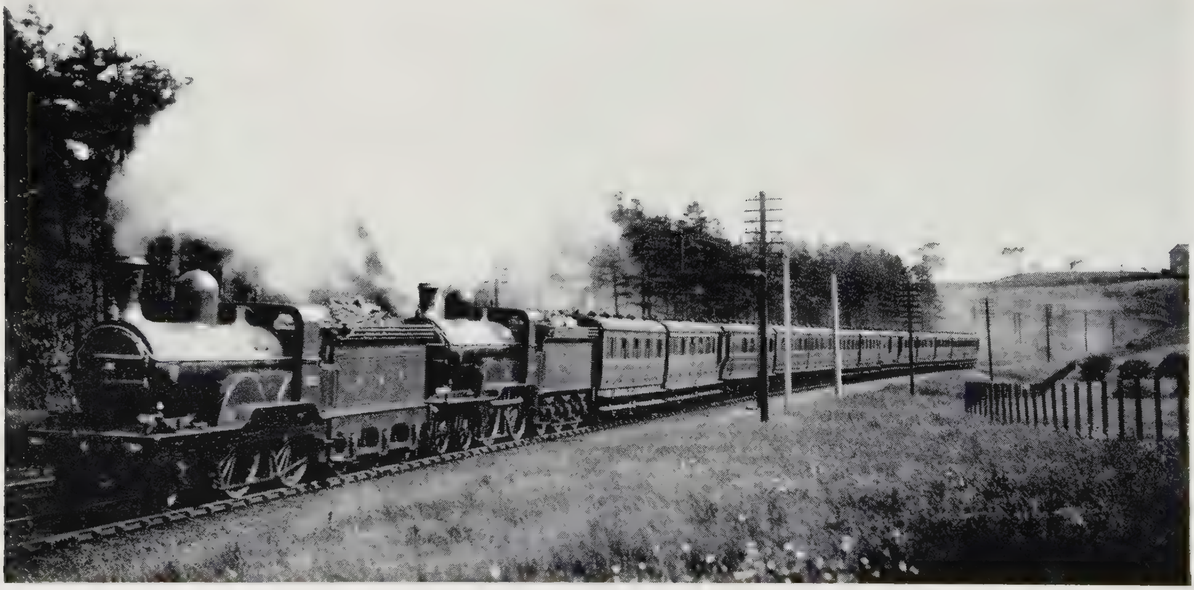


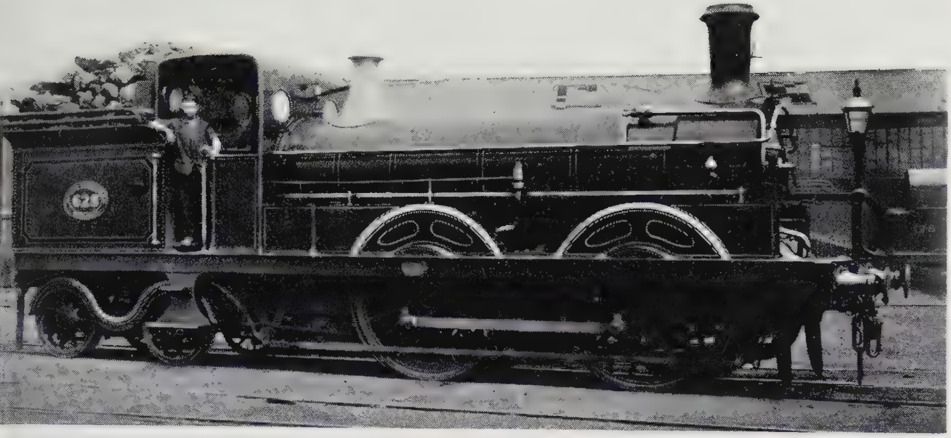


Above: Ivatt 4-4-0 No. 1376 at Grantham on a down train in the early 1900s; note the early form of French's somersault signals to the right of the picture.

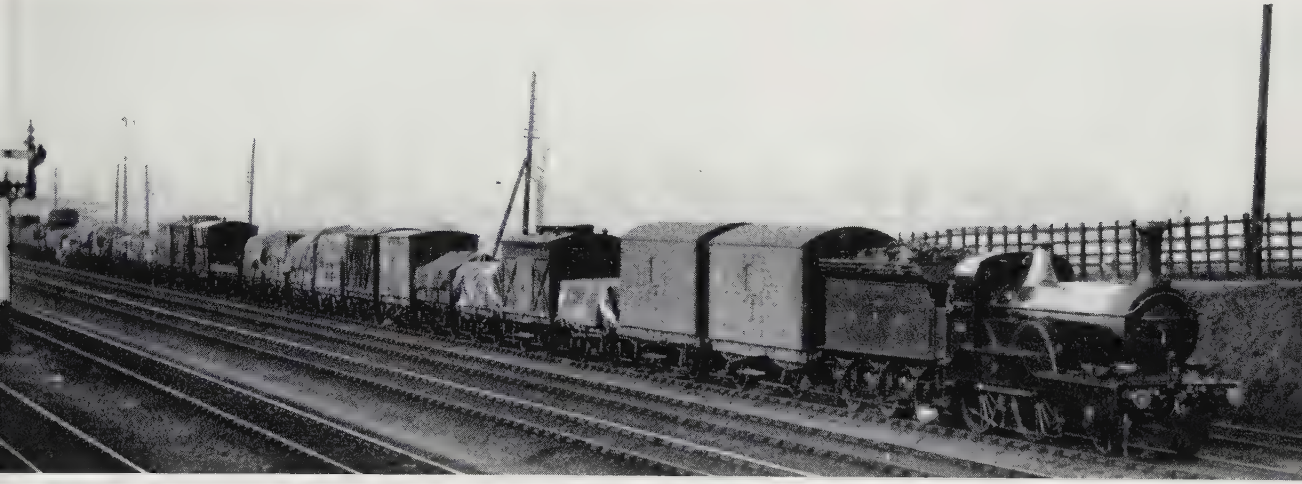
[*The late Rev. T. B. Parley*

Below: A typical Great Northern train of the nineteen-hundreds near Hadley Wood, with a domed rebuild of Patrick Stirling's last 2-4-0 class piloting one of H. A. Ivatt's 4-4-0 bogie express engines.

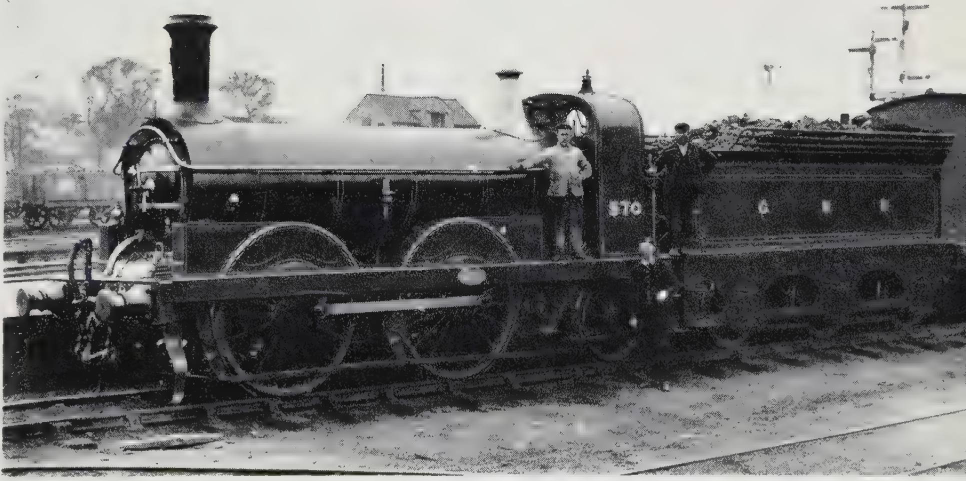


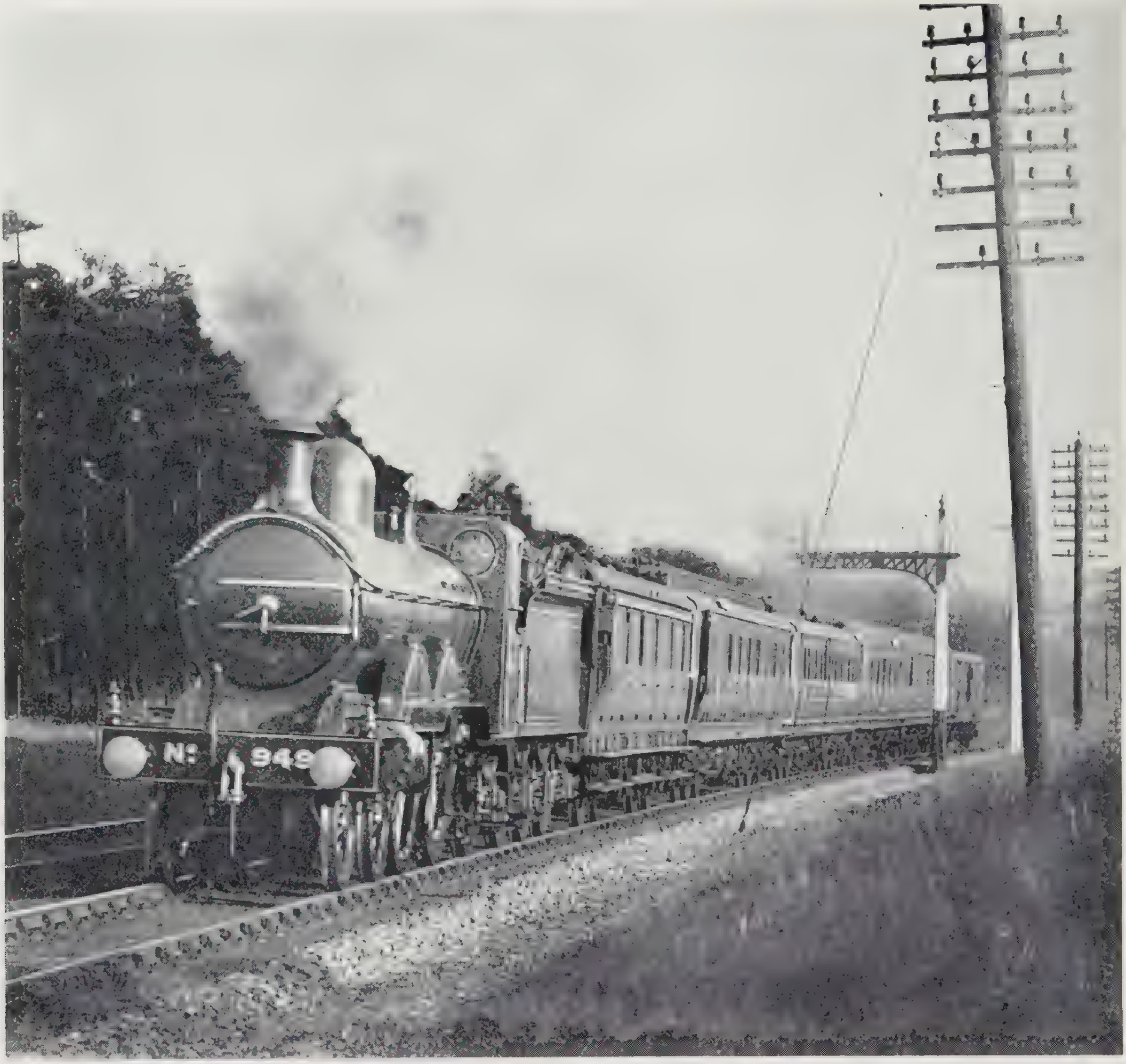


G.N.R. No. 628 was one of Patrick Stirling's earlier bogie suburban tank engines, built in 1879. Side tanks did not appear on his 0-4-4 designs until 1881.



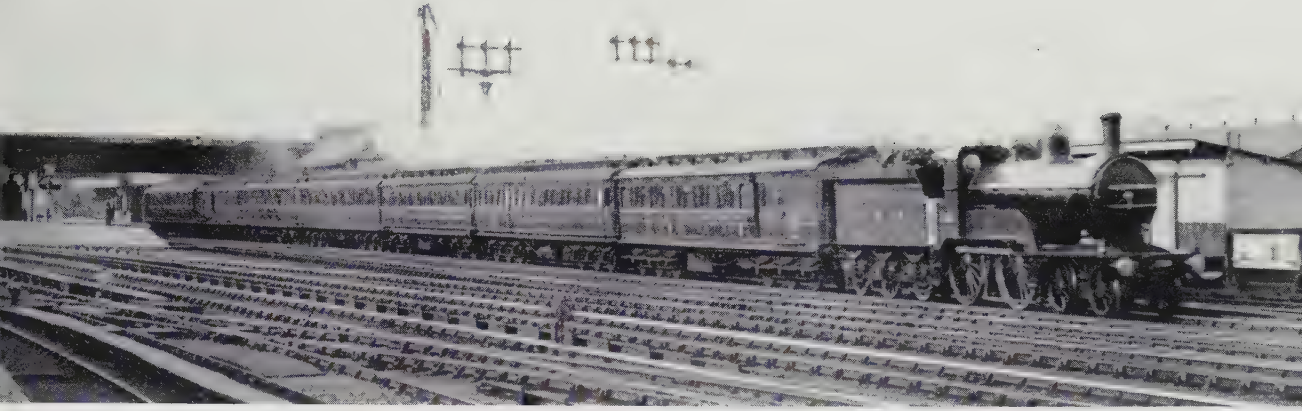
Patrick Stirling was much in favour of single drivers for expresses. Even his large-wheeled coupled engines on the Great Northern found their way to goods traffic and seemed to handle it quite happily. The little mixed-traffic in the *lower* view, No. 570, was built by Sharp, Stewart & Company in 1876; the 2-4-0 *above*, No. 214, heads an up freight towards Potters Bar.



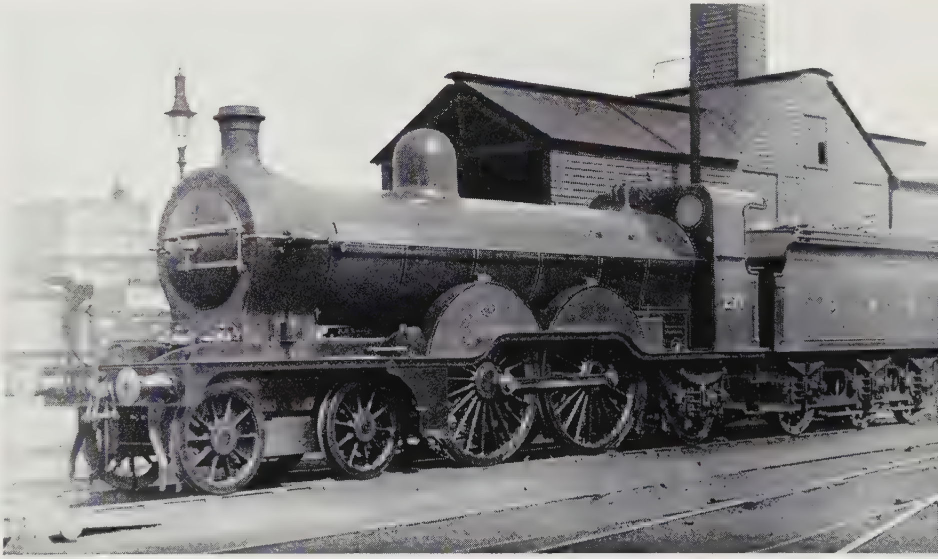


The 6.5 p.m. Kings Cross–Sheffield and Manchester express near Ganwick box, Hadley Wood, hauled by Ivatt 'Klondyke' 4-4-2 No. 949. The six-coach train includes all three varieties of Great Northern bogie coach.

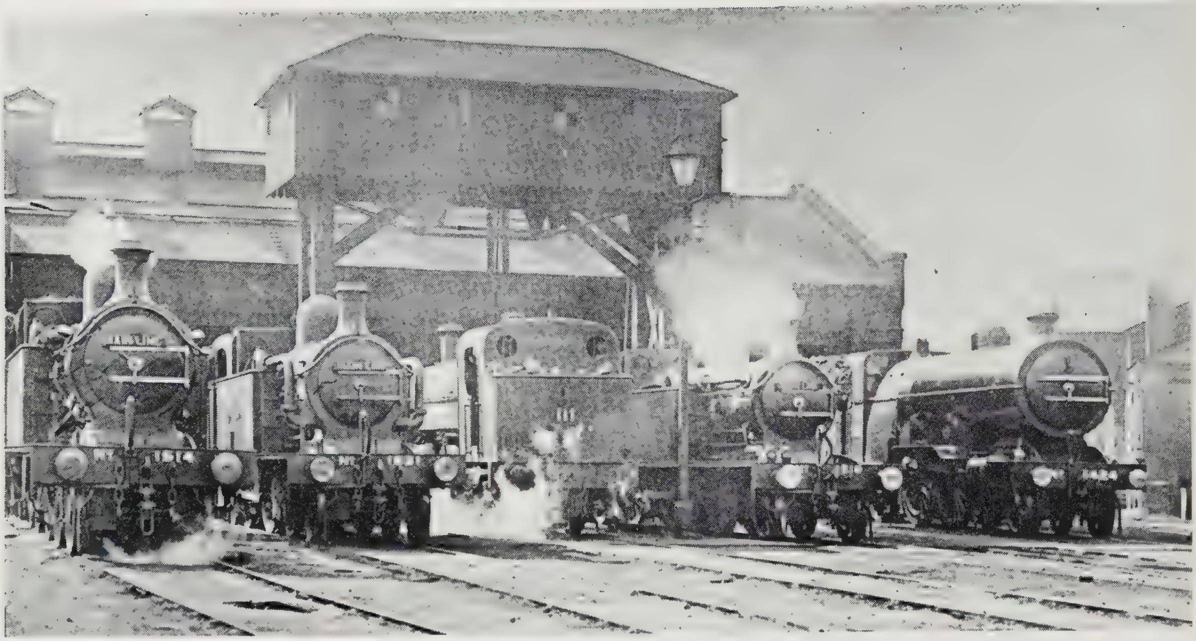
Bottom right: An up ordinary train of the once ubiquitous Great Northern six-wheelers clatters out of Hitchin for Kings Cross behind one of Ivatt's larger-boilered 4-4-0 engines.

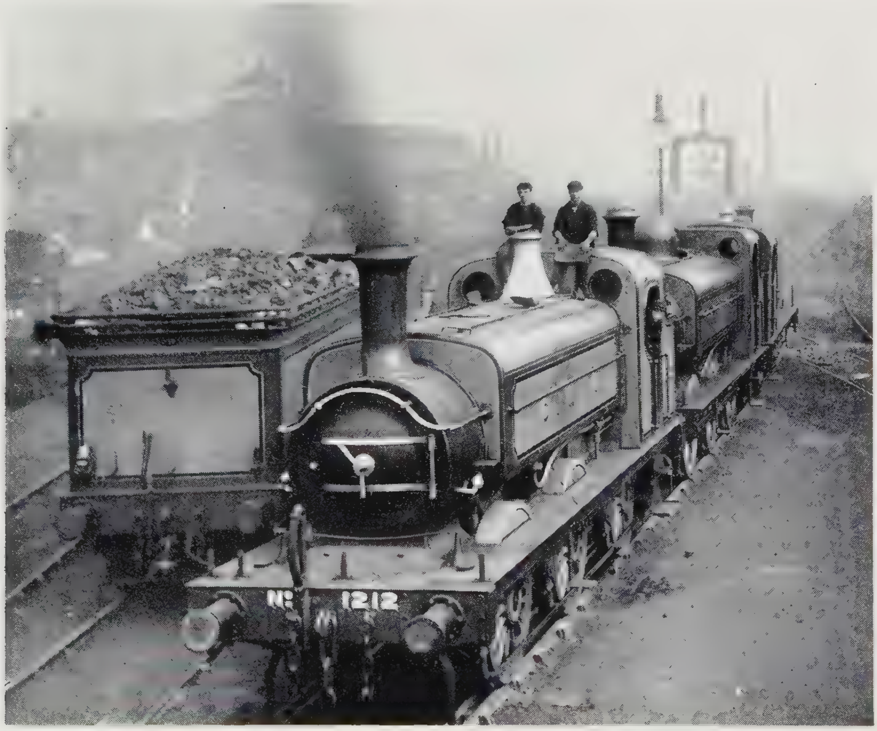


Above: A Great Northern Leeds dining-car express of the early nineteen-hundreds. It is headed by one of H. A. Ivatt's 1326 class bogie engines of 1898–99, and consists of the then new Leeds clerestory stock, mostly twelve-wheeled.



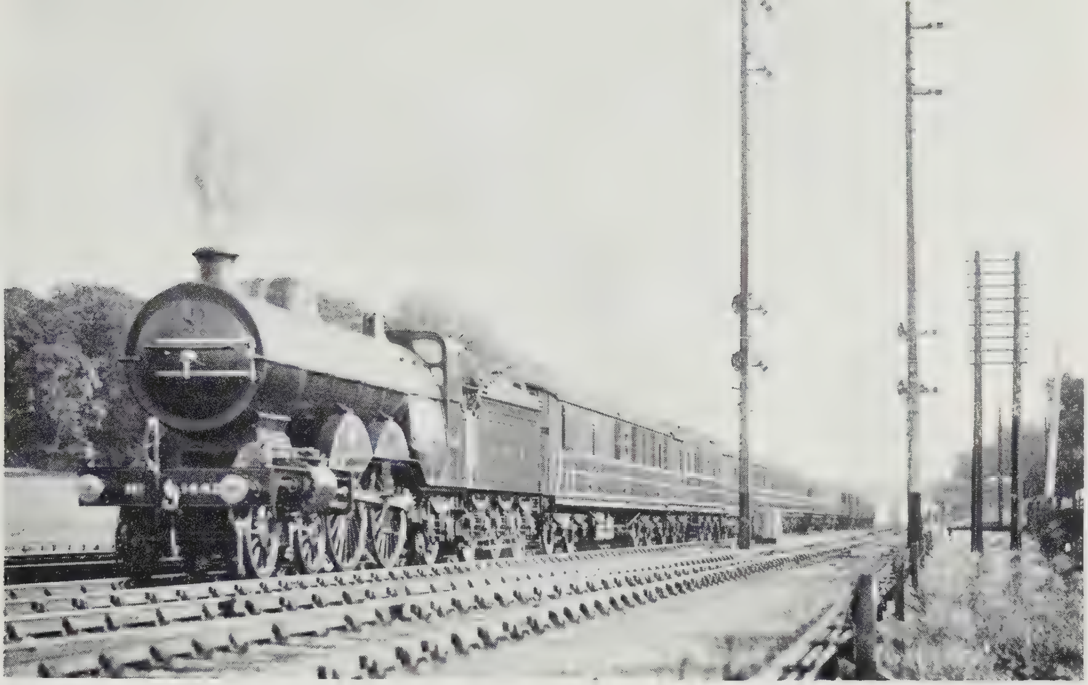
Right: G.N.R. No. 271 was latterly the only inside-cylinder Atlantic on the system. She had begun her career, however, as a four-cylinder engine in 1902; conversion made a much better – indeed, an excellent – engine of her.





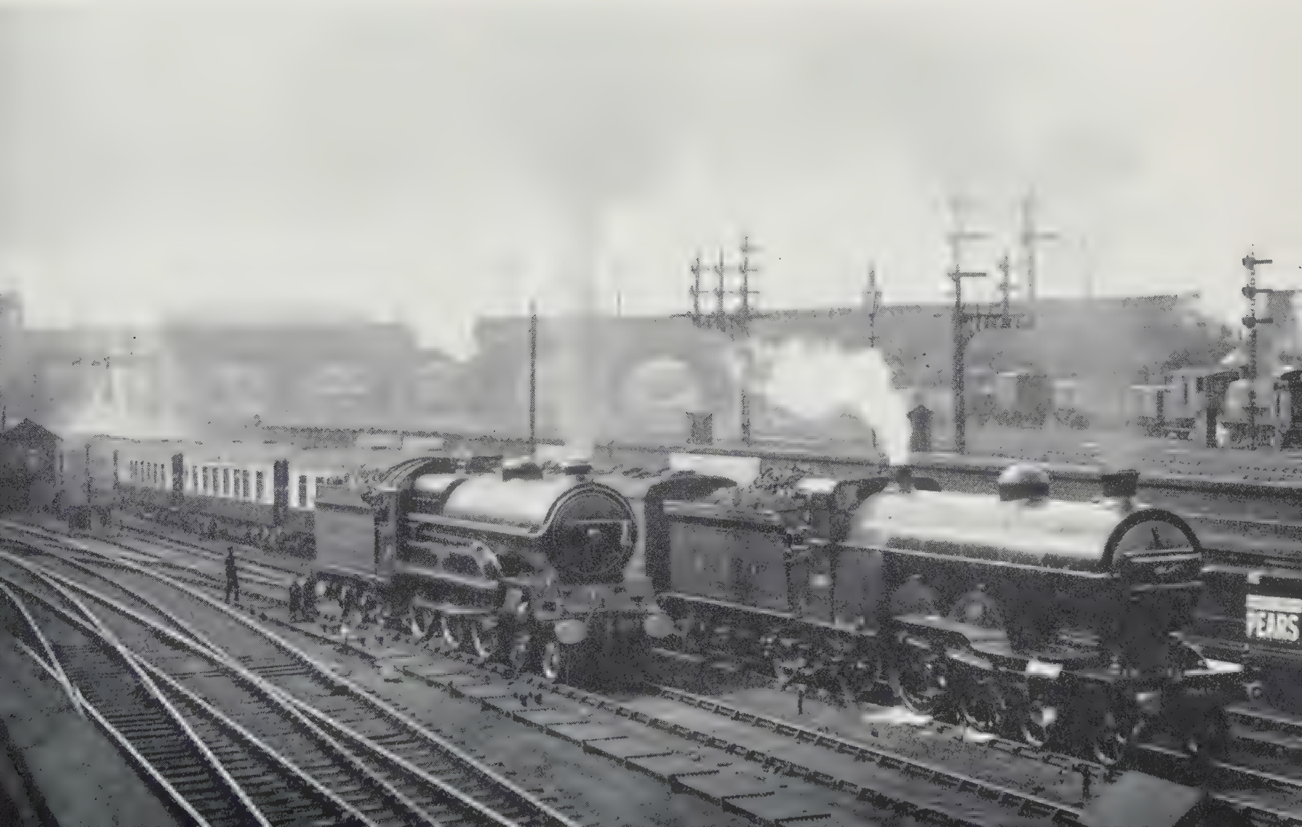
Above: Kings Cross shed, showing 4-4-2 tank locomotives Nos. 1514, 1531 and 1519, 0-6-0 tank No. 111, and large Atlantic No. 1424.

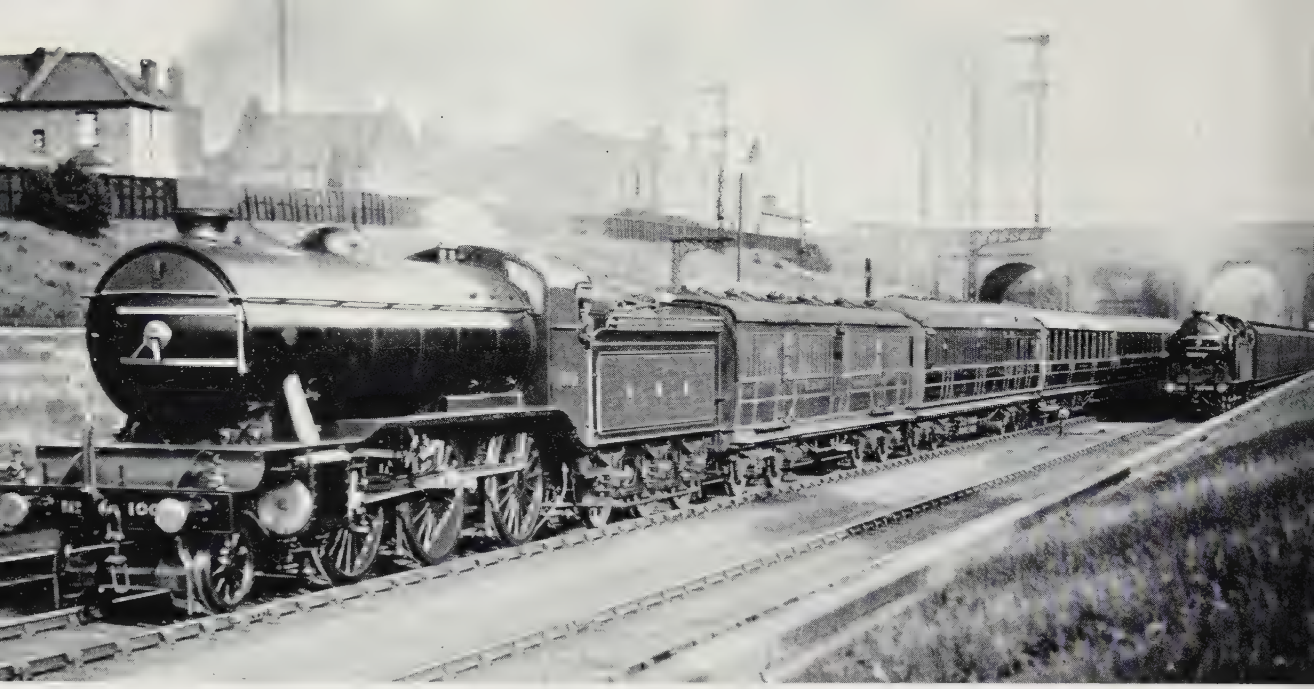
Left: A posthumous Stirling saddle-tank engine, G.N.R. No. 1212. She was one of five built by Neilson, Reid & Company in 1897, the last domeless engines to be built for the Great Northern.



The Great Northern as we knew it – (*above*) an Ivatt Atlantic, an immense and somewhat mixed train, an aspiration of French's balanced semaphores and the noisy climb to Potters Bar. *Below:* early days of the L.N.E.R.; the 'Harrogate Pullman', with an Atlantic, pulls out of Kings Cross past an immigrant Great Central four-cylinder 4-6-0.

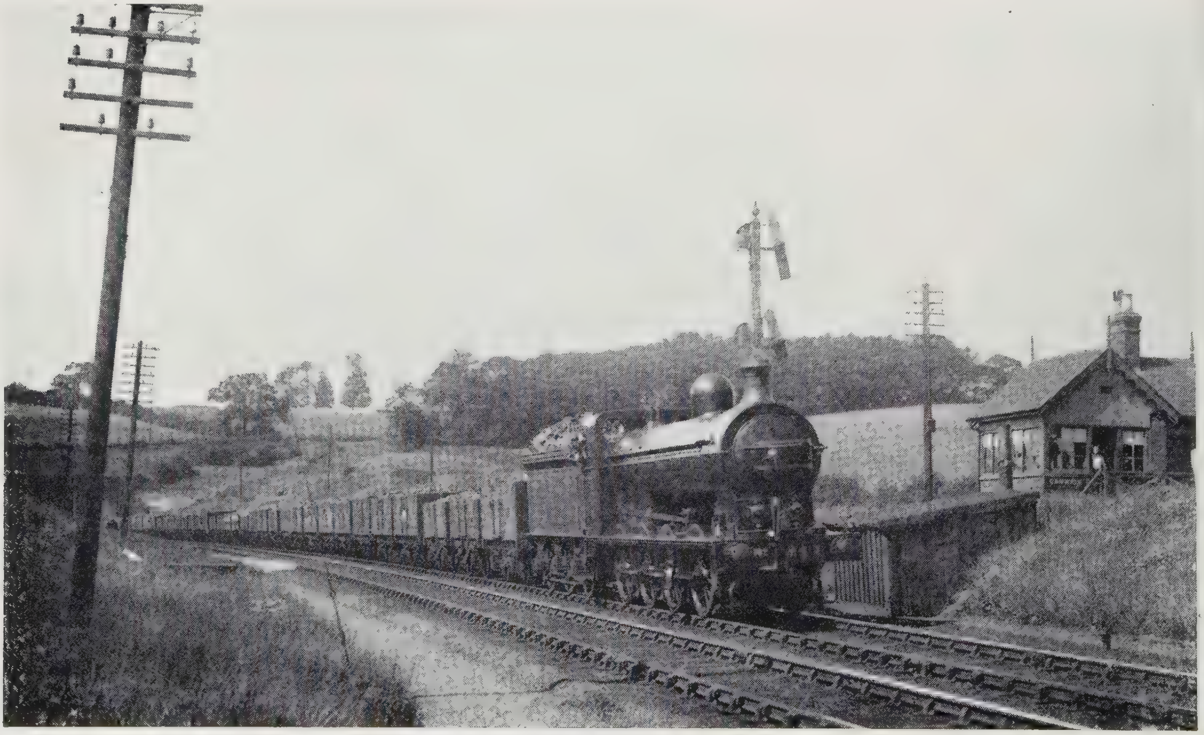
[*Above: H. Gordon Tidey*

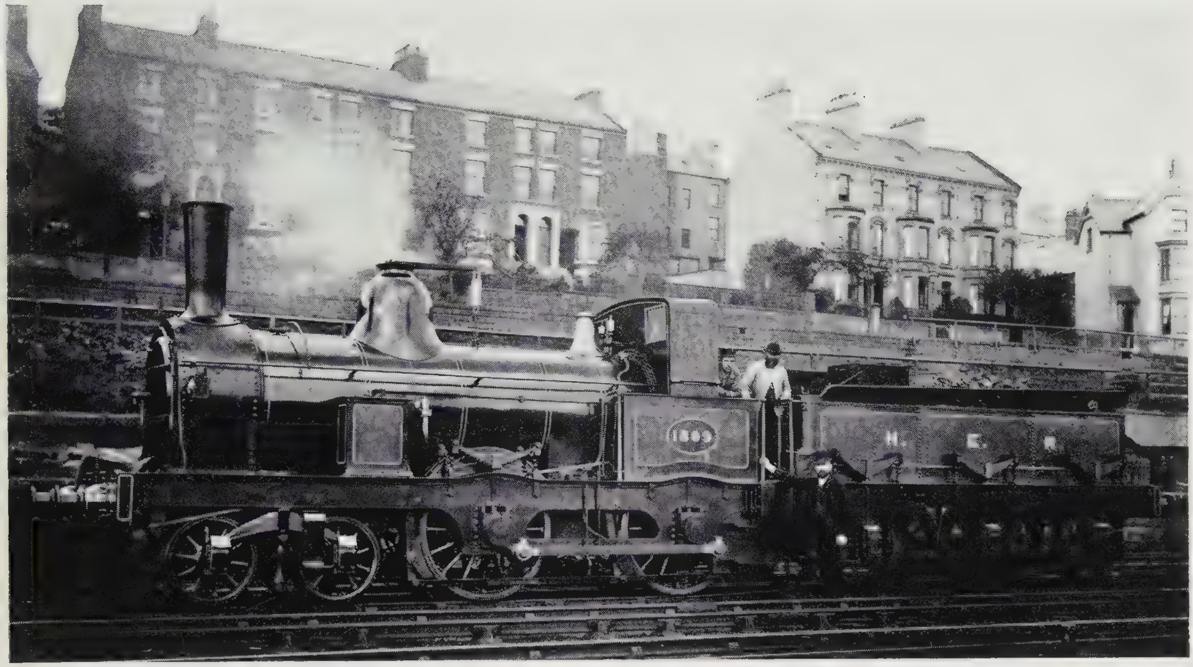




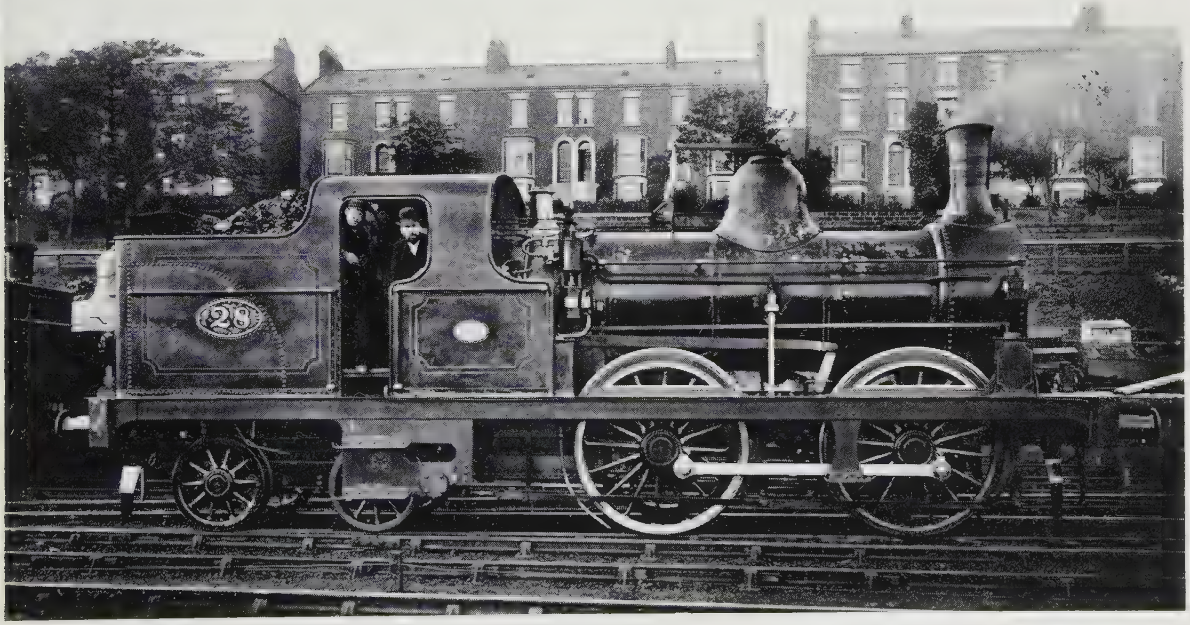
Above: Again the climb to Potters Bar: Gresley's Pacifics have not quite arrived; one of his large three-cylinder Moguls heads an express – not an uncommon sight in 1921 – and one of the new condensing 0-6-2 tank engines comes up aggressively with a not-so-new suburban train.

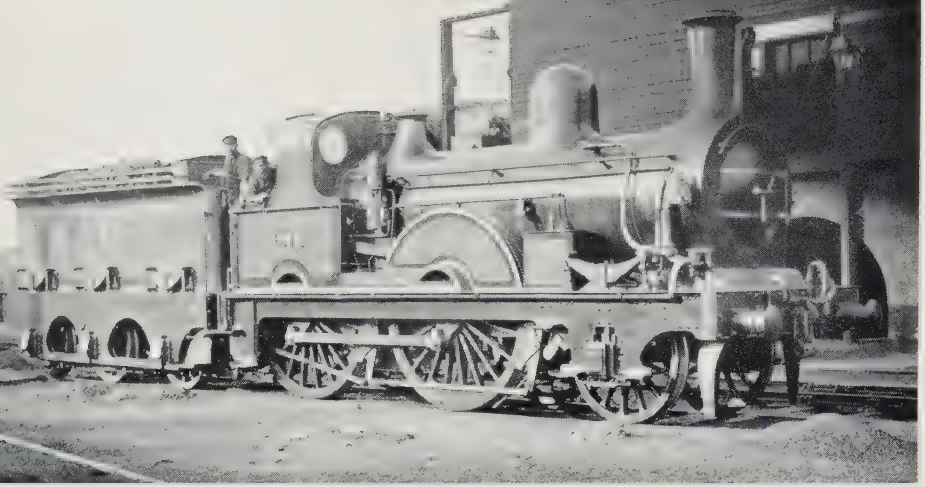
Below: Up G.N. coal train passing Ganwick, Hadley Wood, hauled by superheated 0-8-0 No. 417, one of the 'Long Toms'.



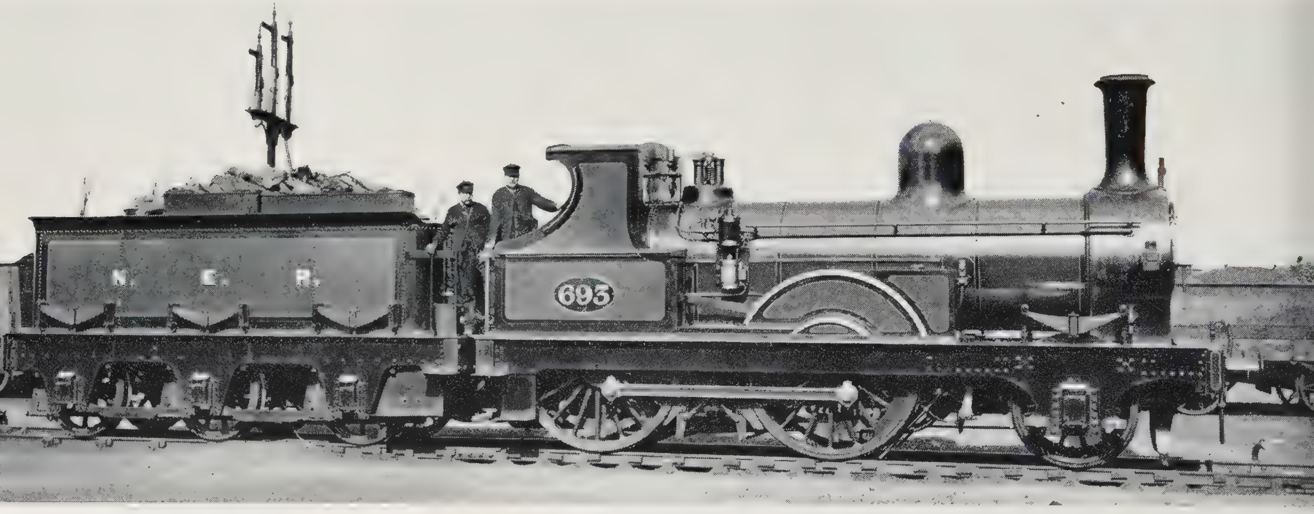


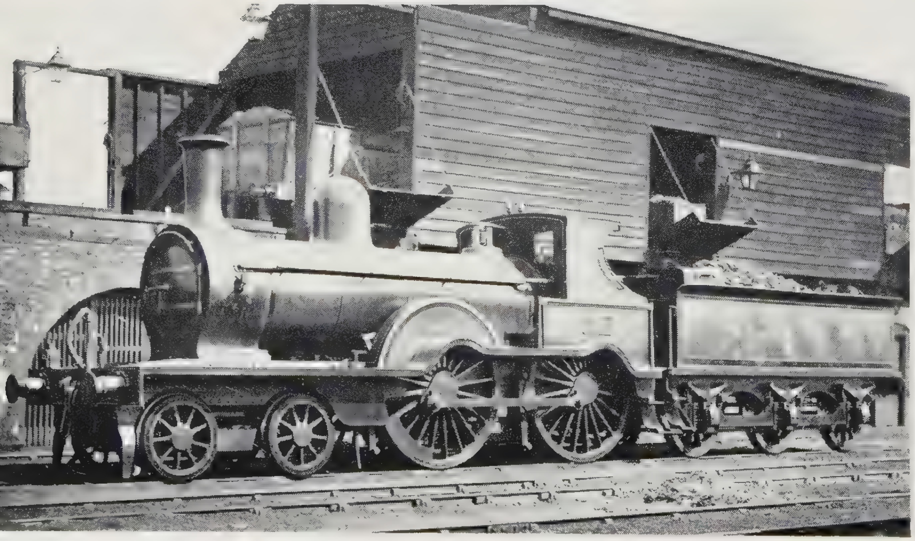
In the days of 'Father' Fletcher on the North Eastern. *Above* is one of the 'Whitby Bogies' built during 1864 and 1865, the first standard-gauge, inside-cylinder 4-4-0 engines in Great Britain, with spring-compensated outside floating axleboxes. They vanished long ago, but the Fletcher 0-4-4 tank engines, built between 1874 and 1883 (*below*), were still relatively common when we knew them in 1920.



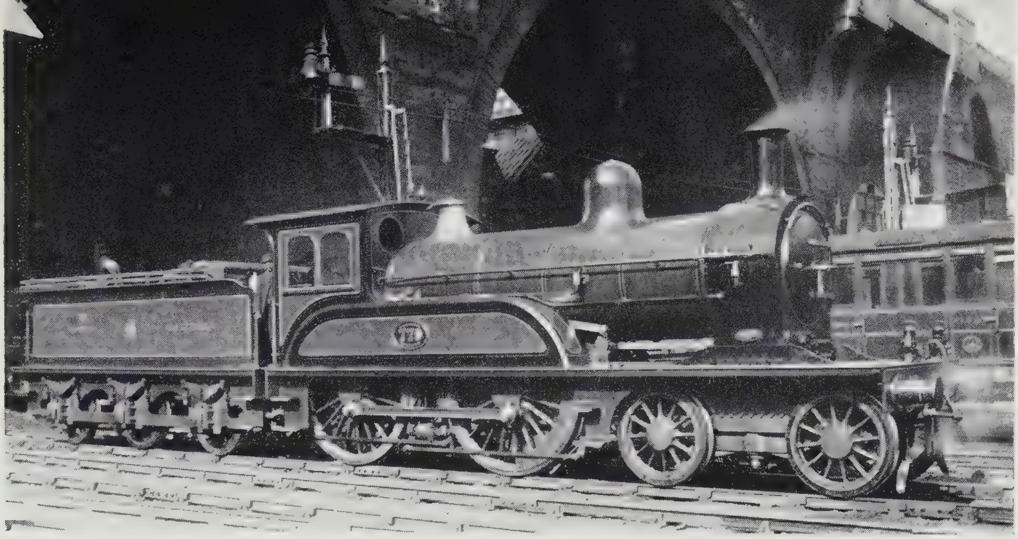


Edward Fletcher's 7 ft. express engine of 1875 on the North Eastern Railway. This one has acquired a Worsdell boiler, but retains, in addition to her admirable Westinghouse brake, the infamous Smith non-automatic vacuum brake, once favoured by the Great Northern and the Manchester, Sheffield & Lincolnshire companies.

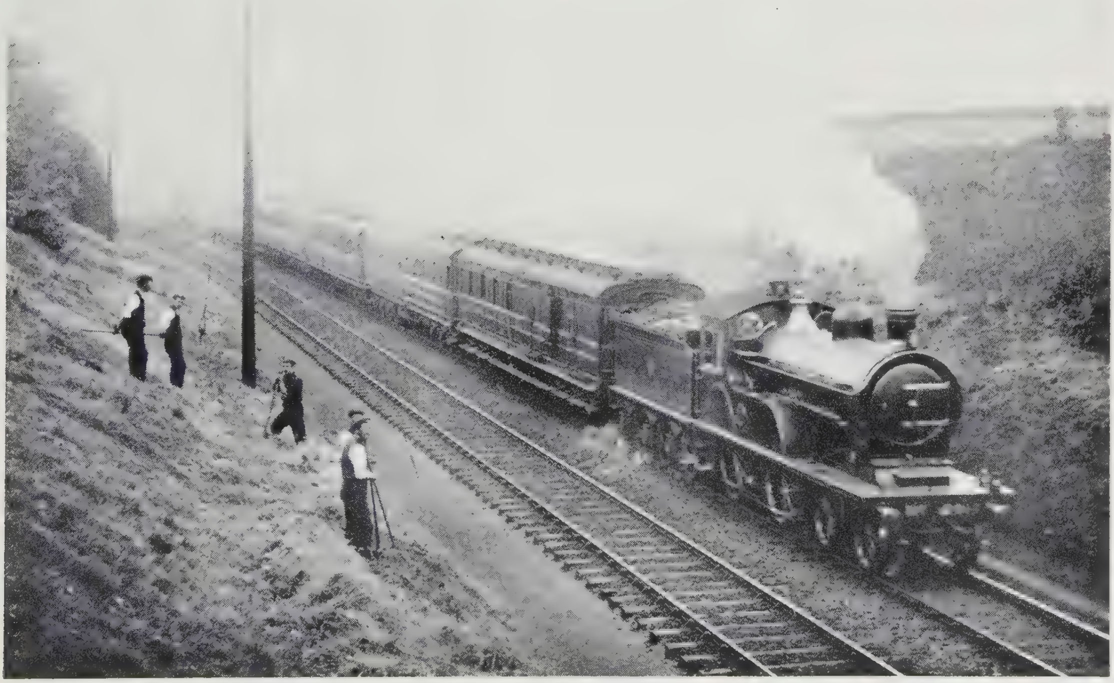




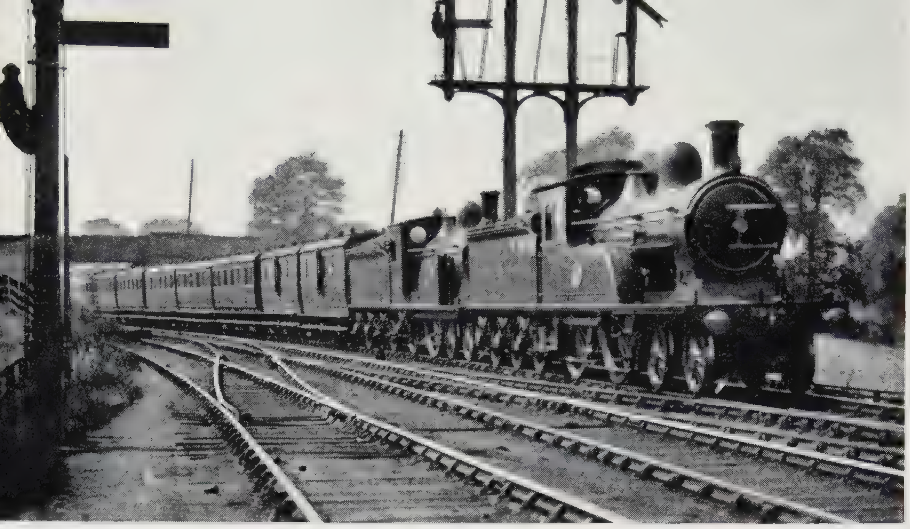
North Eastern locomotive classes numbered legion in Fletcher's day. No. 693 (*above*) was a 6 ft. 6 in. express engine, and in this view she has acquired McDonnell's boiler and cab. Alexander McDonnell was responsible for the imposing, but not very successful bogie express engine in the *left-hand* view, which appeared in 1884. The class introduced pendulum-link bogies.



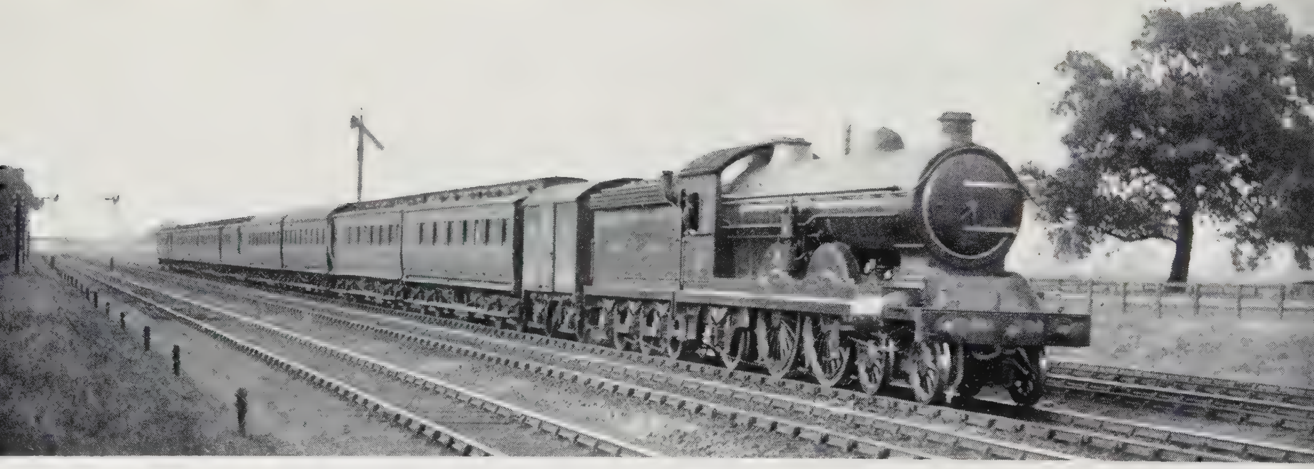
Posed under the old North Bridge at Edinburgh Waverley is T. W. Worsdell's two-cylinder compound express engine No. 779, built for the North Eastern Railway in 1887. The Westinghouse pump was concealed in the continuous splasher and the number-plate lifted up to give access to it.



The 'Flying Scotsman' near Edinburgh in the nineteen-hundreds, headed by one of Wilson Worsdell's splendid Class 'R' 4-4-0s. They carried 200 lb. pressure, a very high figure for their time, and sixty were built between 1899 and 1907.

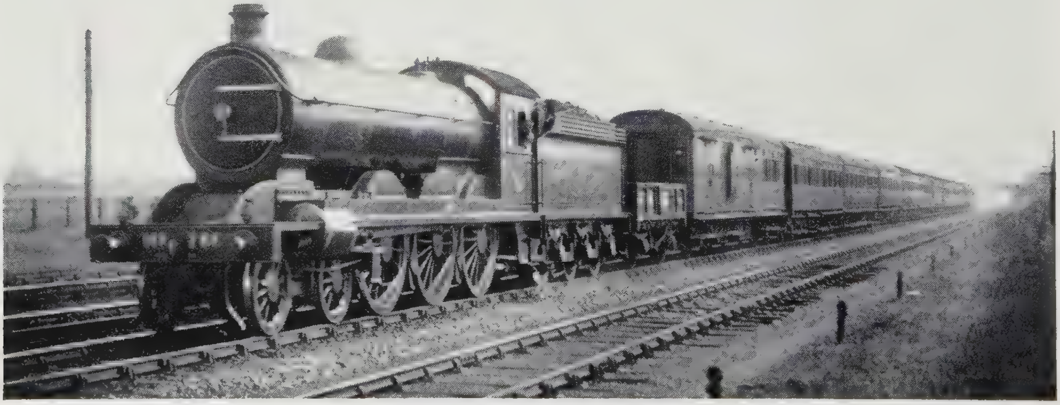


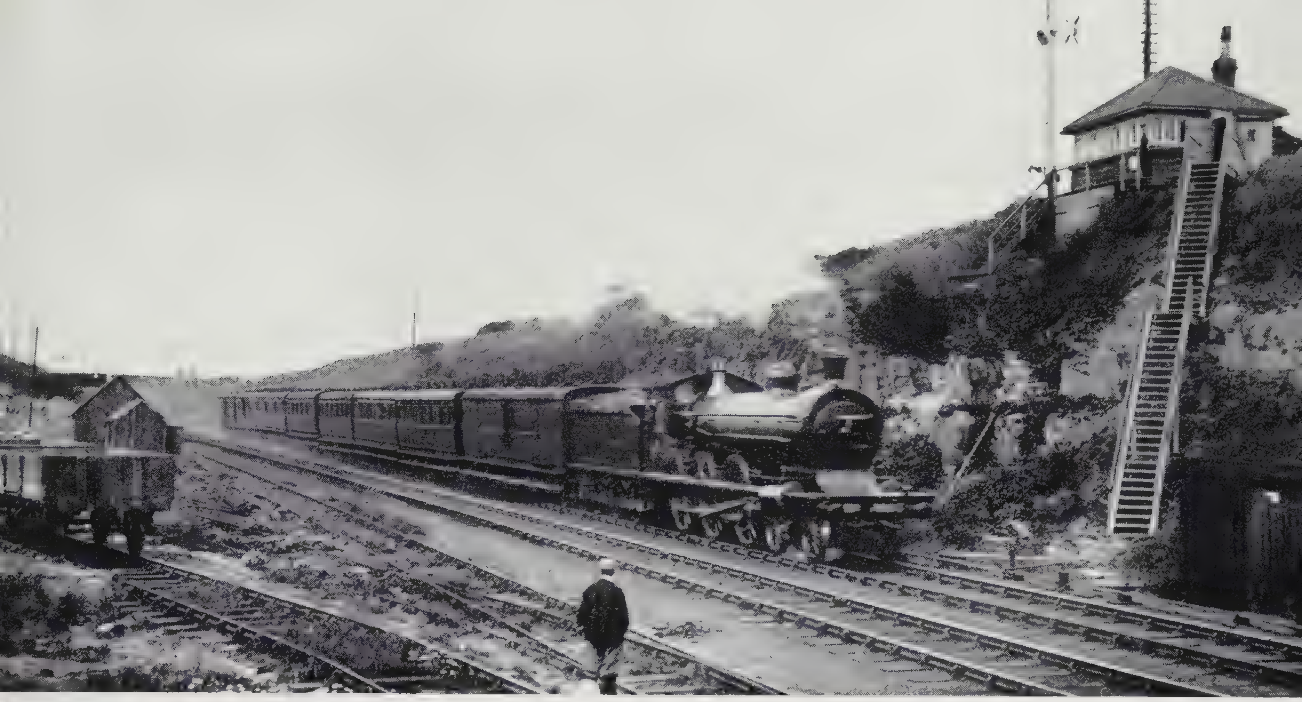
An East Coast express approaching York, about the turn of the century, headed by one of Wilson Worsdell's 4-4-0 engines and one of the bogie singles, simplified by him and originally built as compounds by his father, T. W. Worsdell. The operation took place in 1894. One of the engines was still to be seen at York in 1920. Note the splitting distant signals for York station approach.



North Eastern trains of Sir Vincent Raven's time, about 1920. These views on the Darlington–York main line show, *above*, one of his three-cylinder Atlantics, which first appeared in 1911, and *below*, one of his three-cylinder 4-6-0 mixed-traffic engines. There was variety in North Eastern coaching stock; observe the flat-sided specimens below.

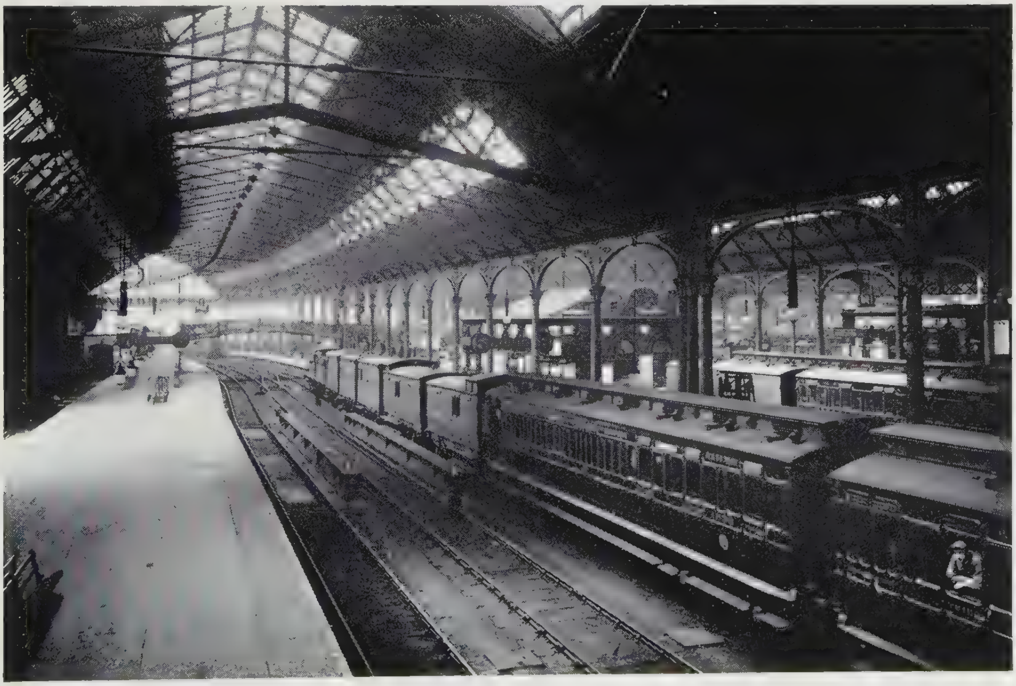
[*Above: H. Gordon Tidey*

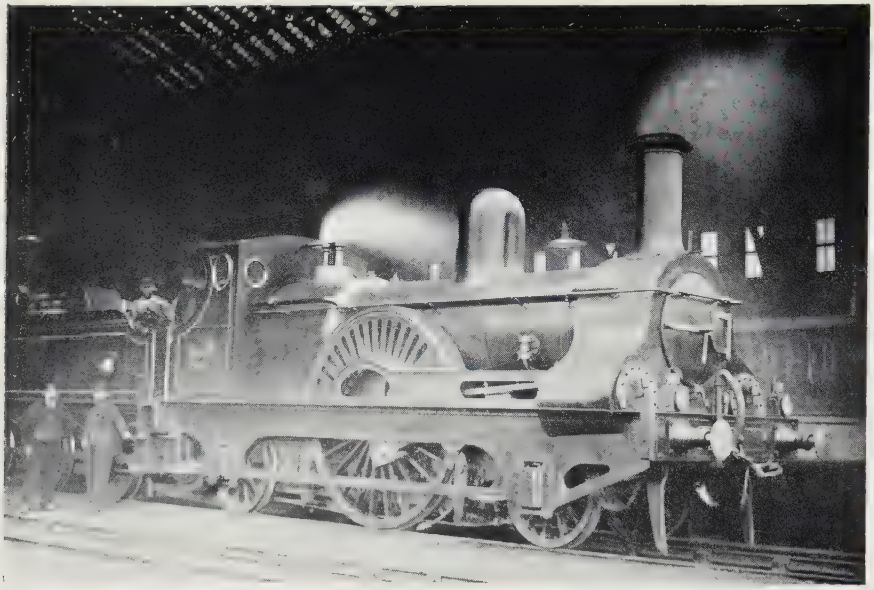




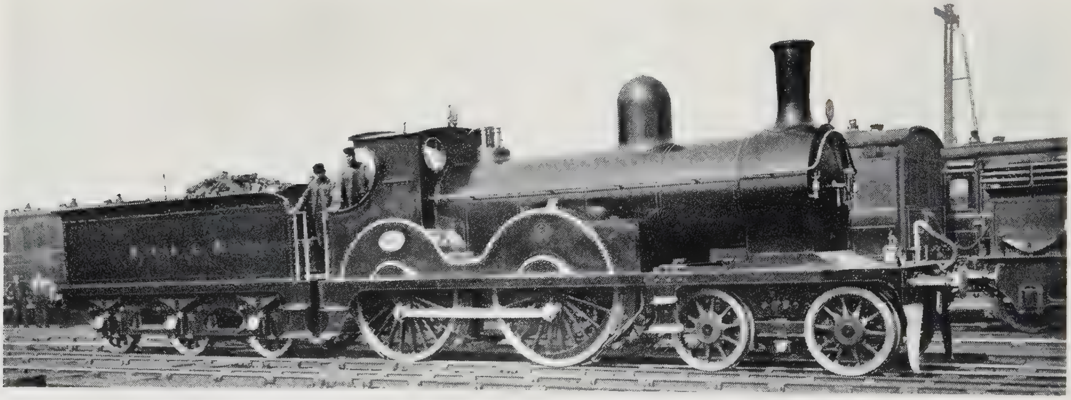
For the 4-6-0 engine there was a surprisingly short reign on the East Coast expresses, confined in pre-grouping days entirely to the North Eastern. Here, one of Wilson Worsdell's engines passes between the stratified rocks of the County Palatine at Benton Quarry, and it is noteworthy that all vehicles of the train are rigid six-wheelers except the leading van.

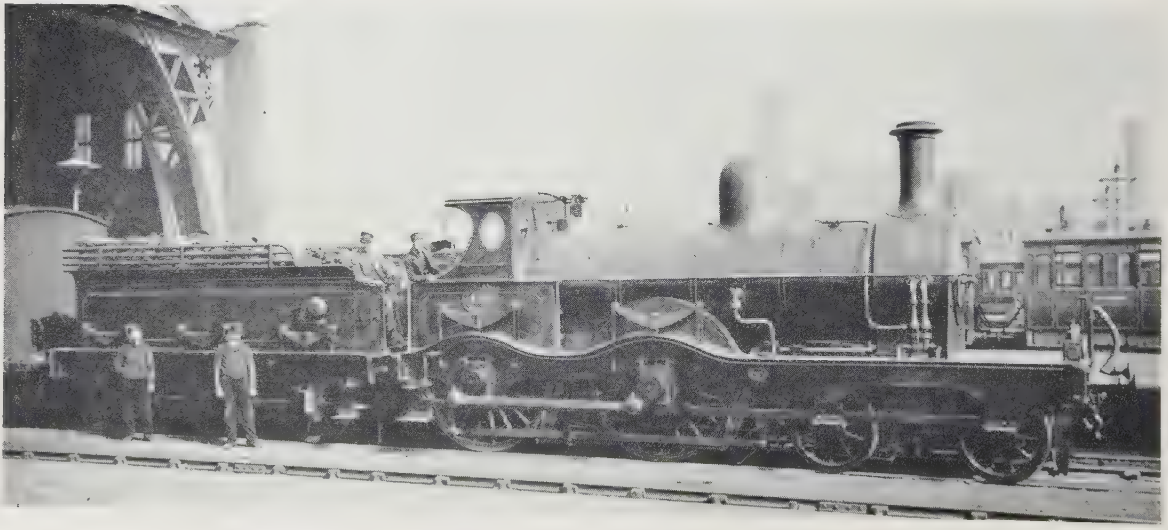
The Joint Station at Leeds, built in 1869 and enlarged ten years after, exemplified the Victorian conception of a great provincial railway station, with plenty of iron (*below*). The clerestoried North Eastern coaches are by David Bain, about 1900, before he went to the Midland Railway. Of their day they were quite extraordinarily comfortable; immense numbers were built.

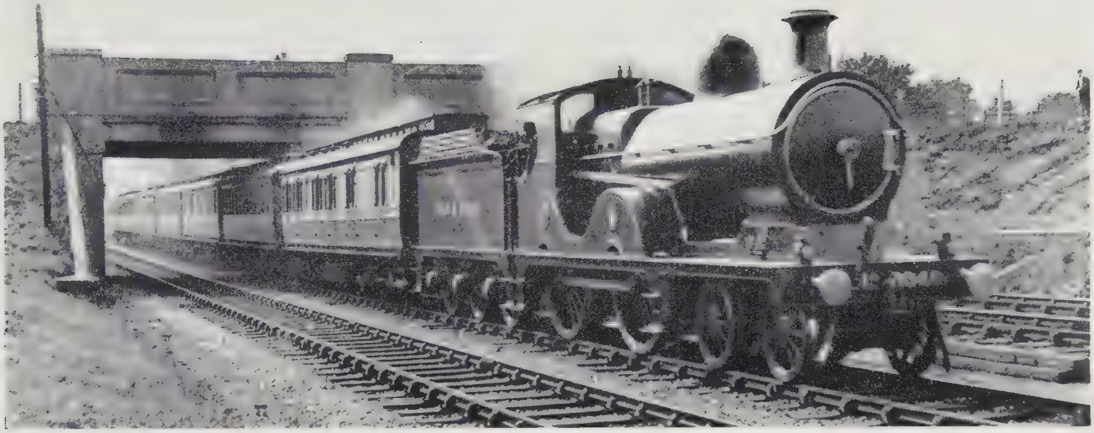




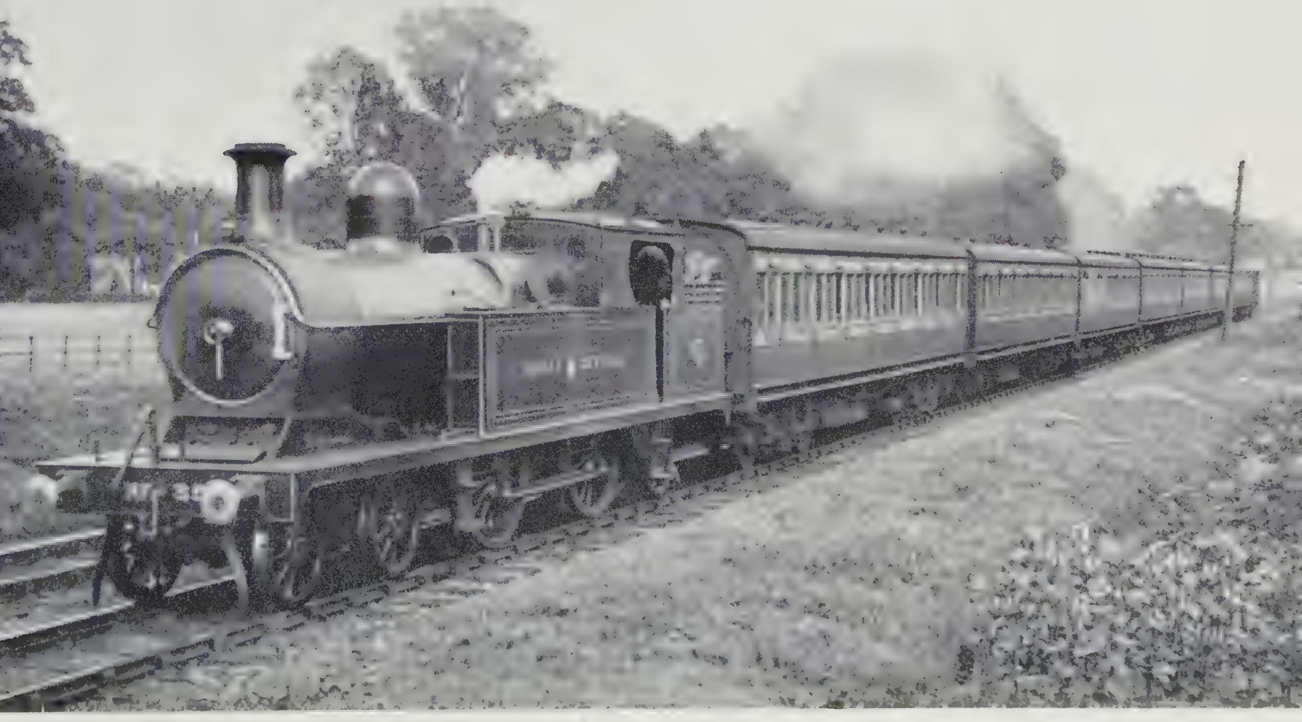
Manchester, Sheffield & Lincolnshire. *Above* and at *bottom* is the work of the gifted, unfortunate Charles Sacré, whose 7 ft. 6 in. outside-cylinder singles were the last of the type to be built for a British railway (during 1882–83). The double-framed bogie engine *below*, also at Manchester Central, was older, the design dating back to 1877. Smith's vacuum brake equipment is shown; it contributed to the enormities of the Bullhouse Bridge accident in 1884, in which one of the class broke a crank axle. It also broke poor Sacré. In the *middle* is one of Harry Pollitt's 4-4-0s.

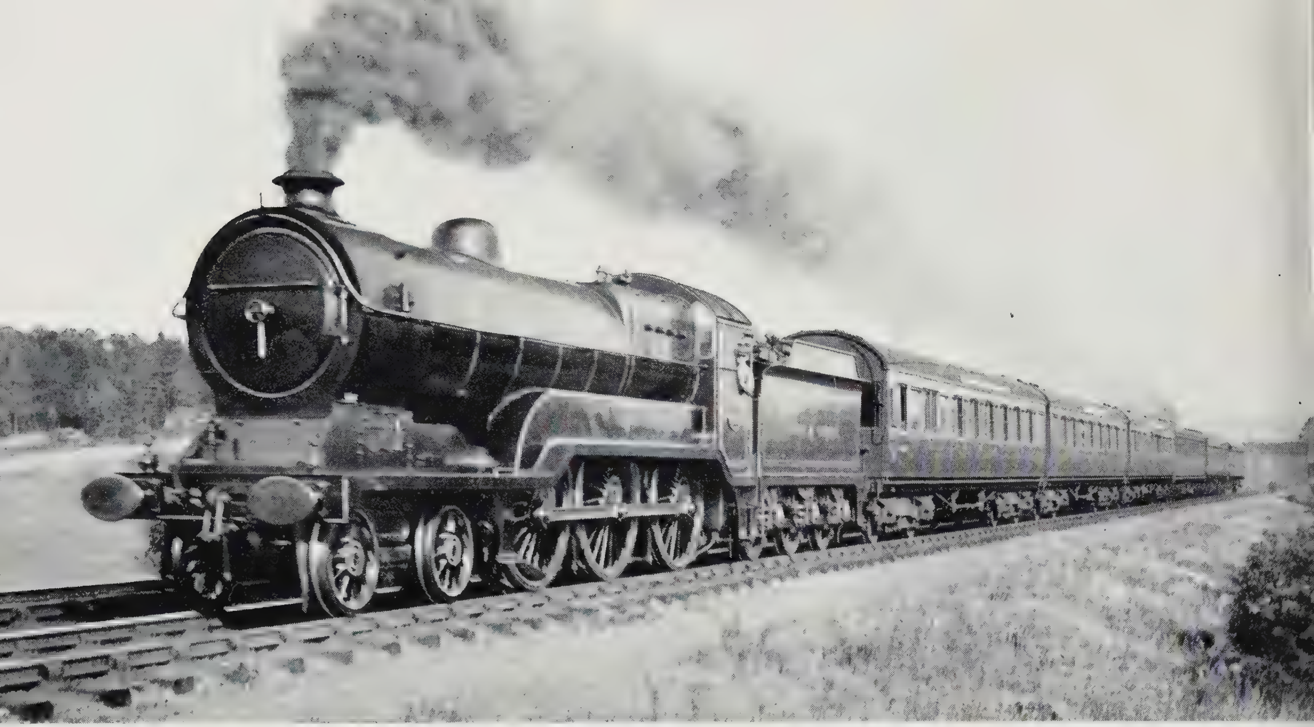




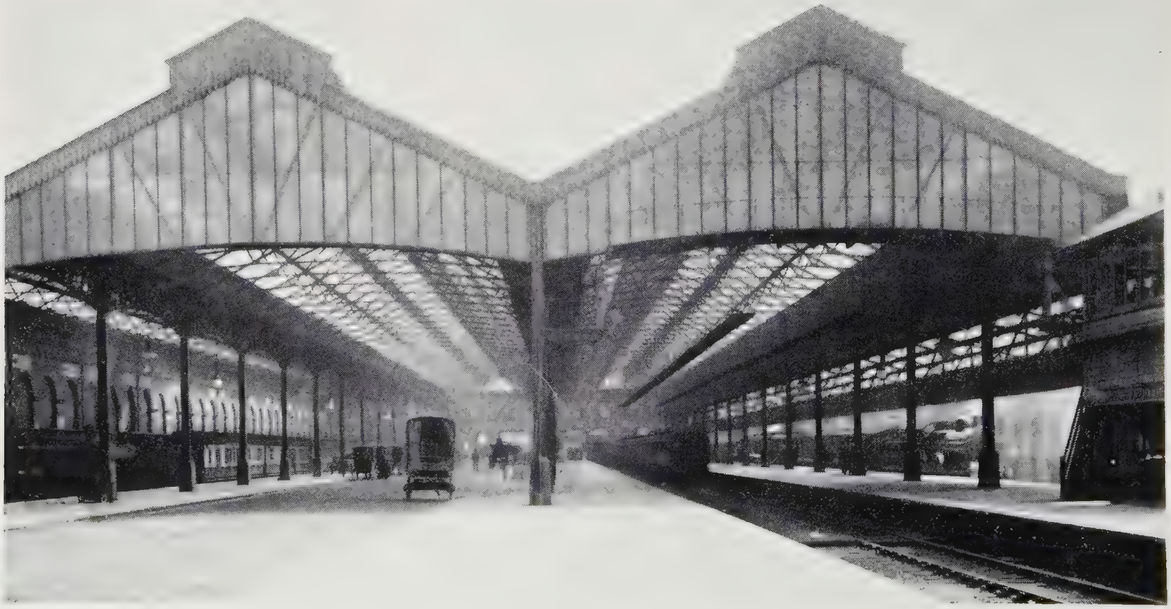


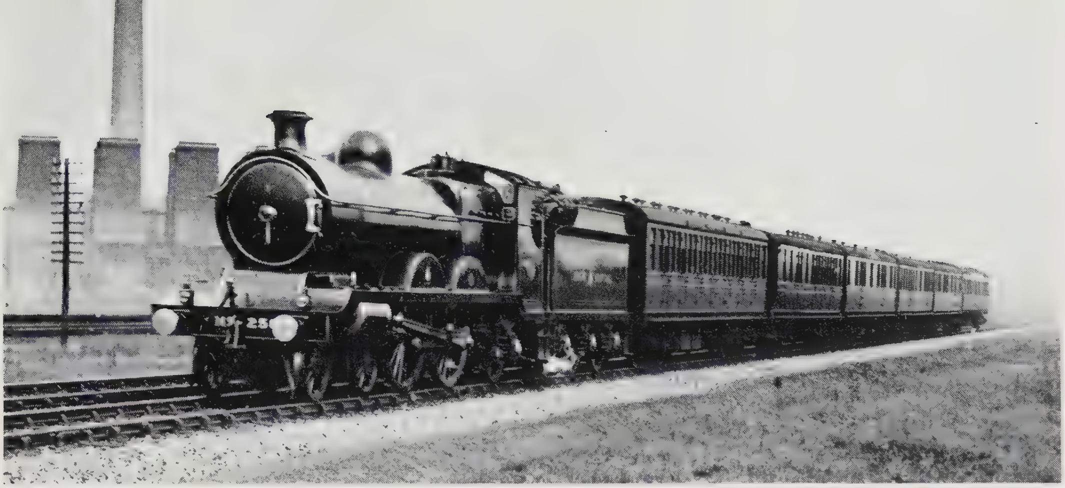
Great Central Days: The time is in the early nineteen-hundreds; both scenes are in the London approaches, both engines are by J. G. Robinson, who was the last Great Central locomotive superintendent. *Above* is an up Manchester and Sheffield express with a 'Sir Alexander' class engine; beyond are the Metropolitan roads, not yet electrified. The *lower* view shows an Aylesbury train in the then quiet neighbourhood of Northwood. The suburban coaching stock was, of its time, outstanding.



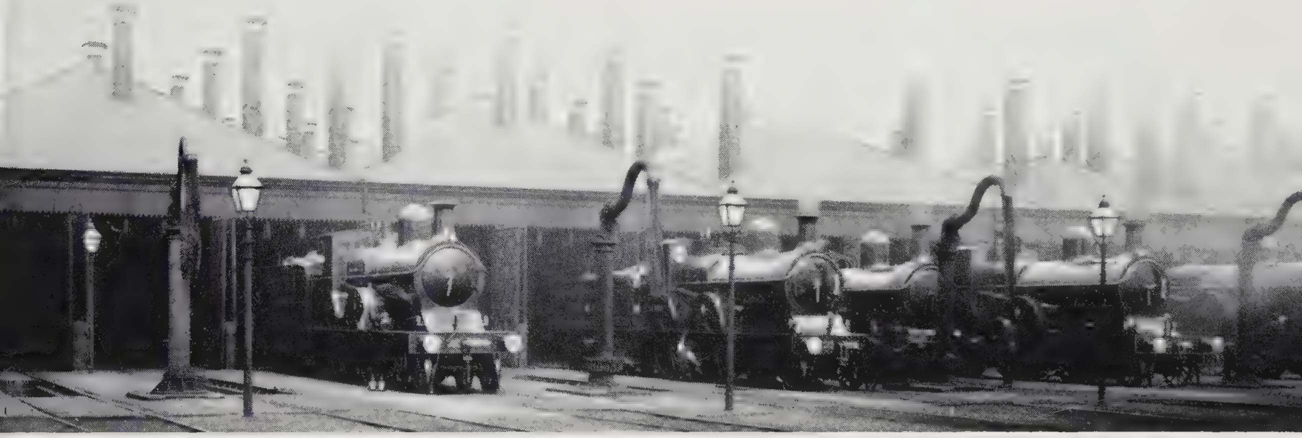


Great Central again: *Above:* No. 427 *City of London*, one of the 'Sir Sam Fay' class, heads a north bound express near Amersham, with the rather balloon-like carriages of J. G. Robinson's later years. *Below* is that neat, but somewhat disappointing London terminus of Marylebone. The visible rolling stock suggests that the photograph was taken in the early nineteen-hundreds. Except for this, and the signalbox, the horse and cart and the cabs, the place has changed little. It never grew up.



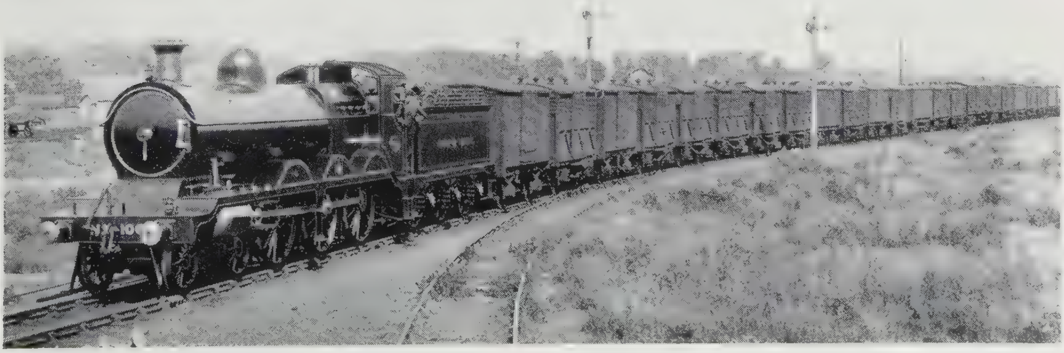


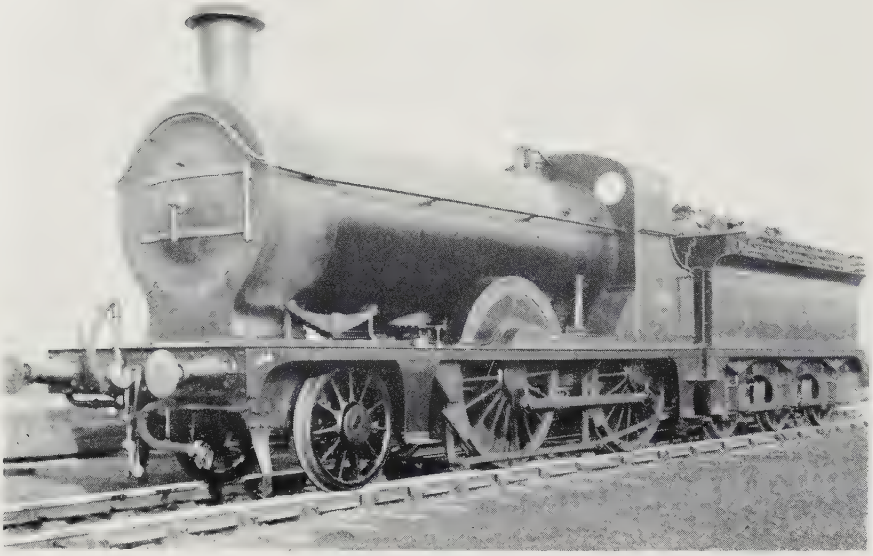
The Sheffield Special, before the 1914–18 war the fastest train out of London, heads northwards near the Metropolitan's power station at Neasden. One of Robinson's Atlantics heads a train of corridors dating from the opening of the Great Central's London Extension.



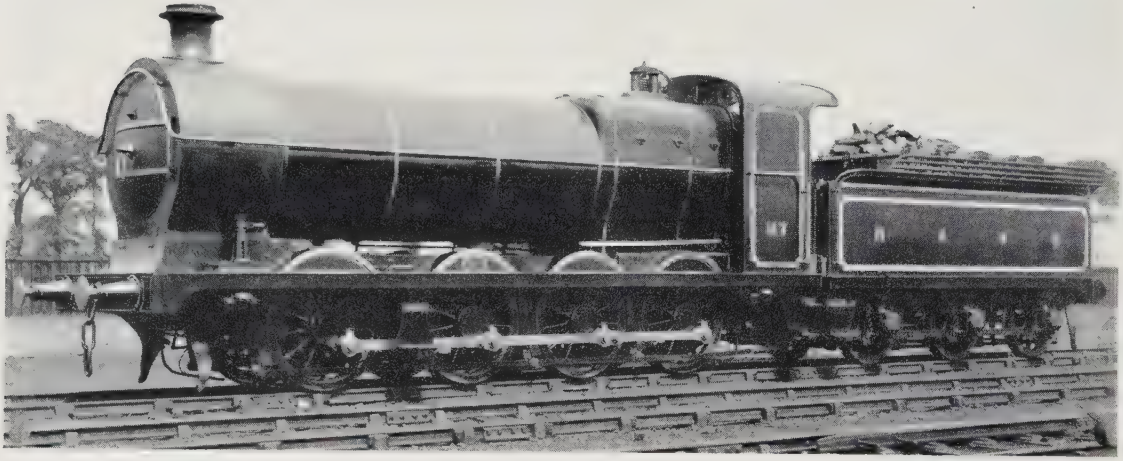
Above: Pollitts on parade; all the same it must have been some time after Pollitt, for all have Robinson's characteristic Great Central chimneys. The place is Trafford Park.

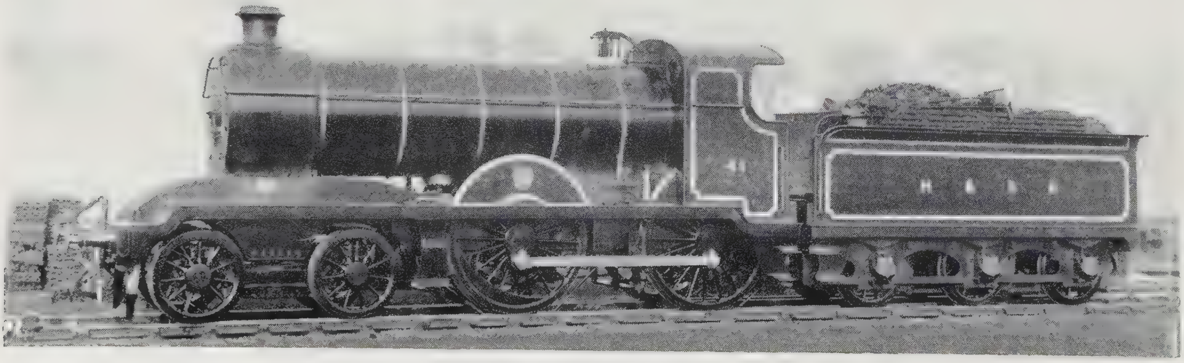
Below: Great Central—Fish—Robinson's 'Fish' 4-6-0.

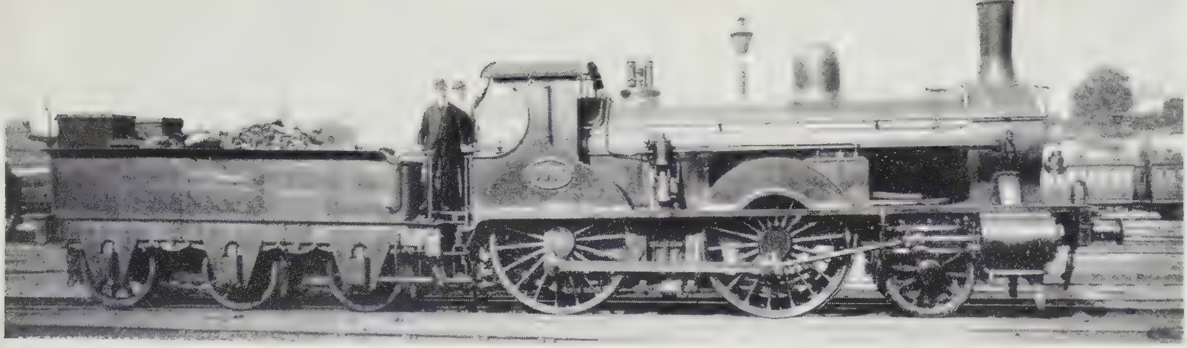




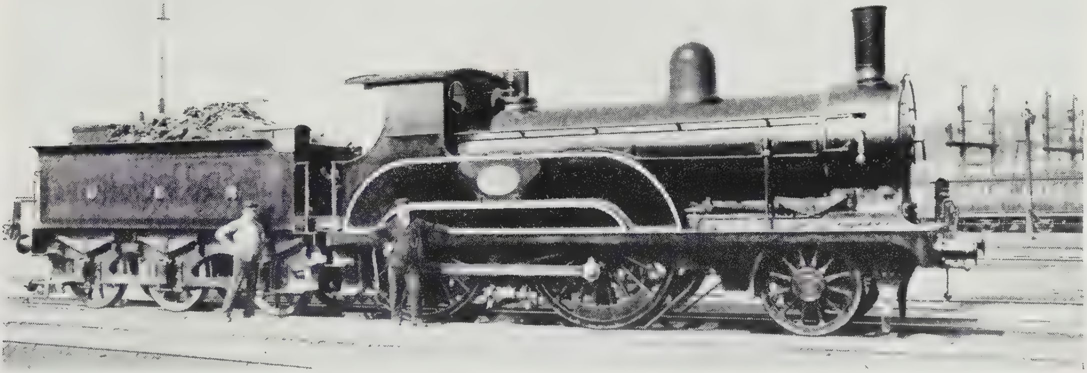
Hull & Barnsley. Its full title at first was Hull, Barnsley, & West Riding Railway & Dock Company. On the *left* is one of its original Beyer, Peacock passenger engines of 1885, later rebuilt with a Stirling boiler. Matthew Stirling, last of the great family to command a locomotive department, stuck to his father's (Patrick Stirling's) and his Uncle James's domeless-boiler tradition. His eight-coupled engines (*centre*) brought the South Yorkshire coal from Wath to Hull; his bogie express engines (*bottom*) worked a fast service between Hull and Sheffield.



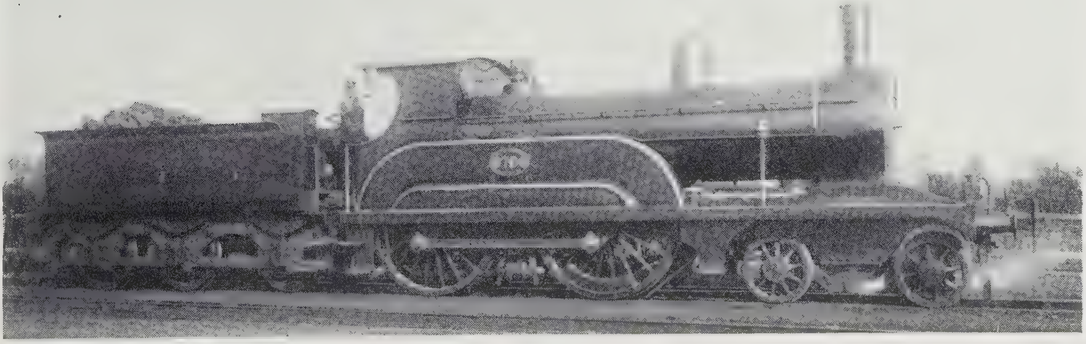




William Adams's career on the Great Eastern was a frustrated one in many ways. The company was poor and he had his own disappointments but he managed successfully to rebuild certain of Robert Sinclair's old engines, of which this mixed-traffic was an example. The original dated back to the 'sixties; here the boiler, front end, and cab are all pure Adams.

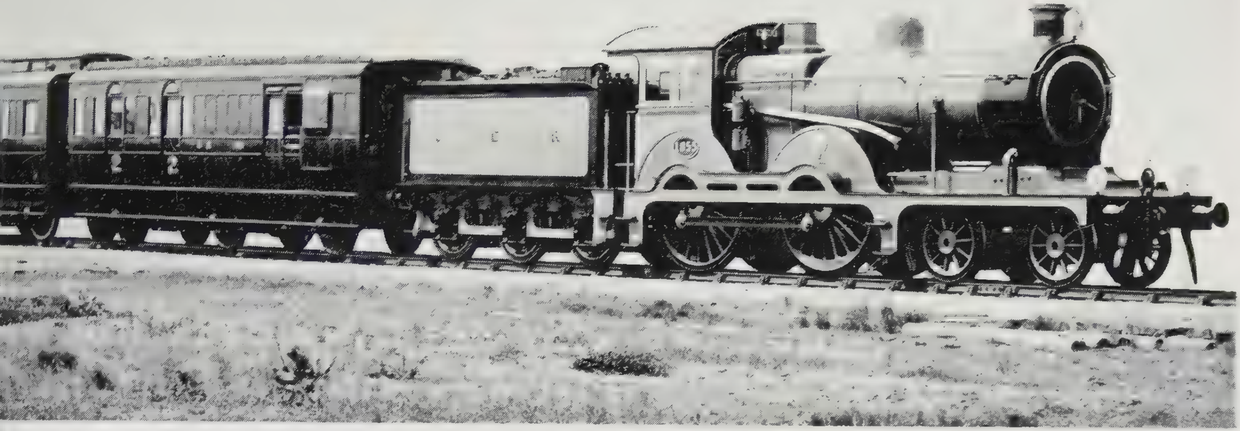


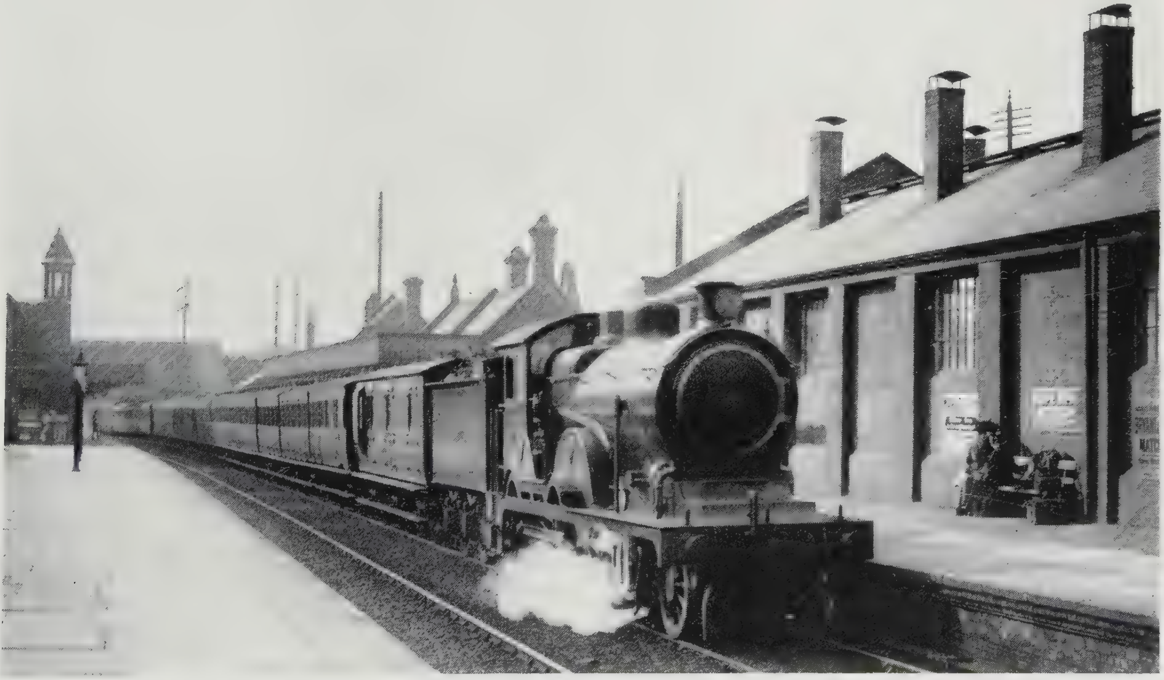
It was T. W. Worsdell who concentrated all G.E. locomotive building at Stratford and spurned outside builders. His first design was the 'G14' 2-4-0, of which twenty were built in 1882–83 and which set a thirty-year G.E. standard of 7 ft. coupled wheels. The late E. L. Ahrons thought little of their performance, describing a run behind one from March to Cambridge as 'one of the most solemn and funereal processions that it was ever my lot to endure'. A Stratford confectioner, however, produced 'G14 Rock'.



Worsdell's last G.E. design was the 'G16' two-cylinder compound 4-4-0, of which eleven were built at Stratford in 1884–85. They were in many respects identical with the 'G14s', having the same boiler but of higher pressure. As compounds on the Worsdell-von Borries system, which the designer was to test more extensively in his N.E.R. career, the 'G16s' ran quite efficiently, but after Worsdell's departure all were converted to simple engines in 1892.

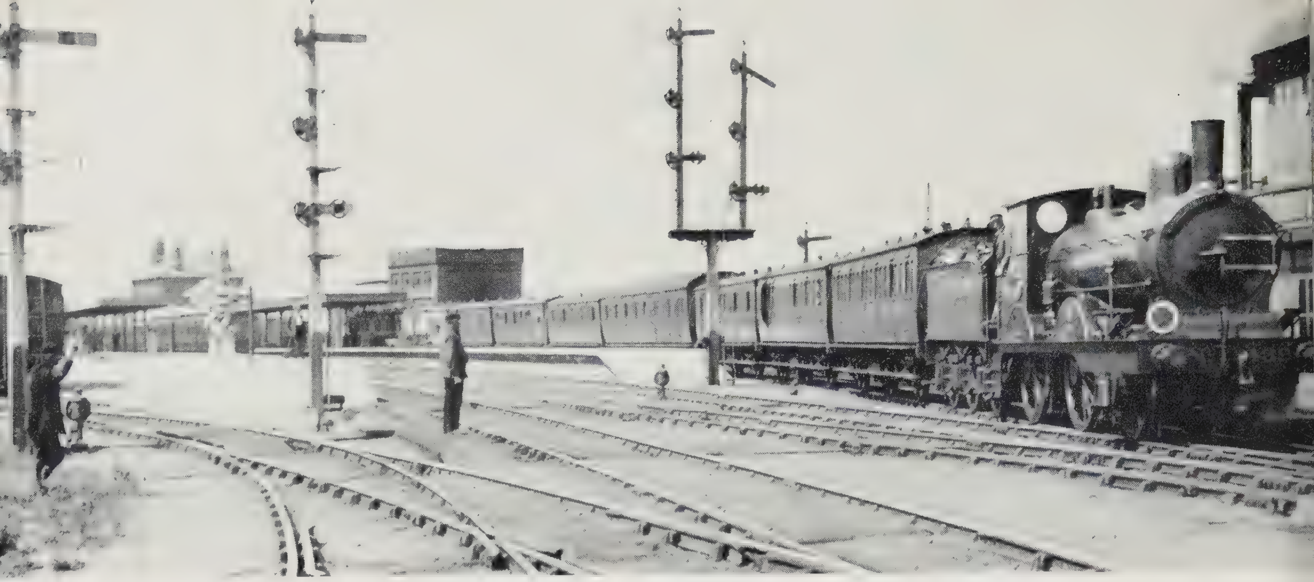
It may be argued as to what extent James Holden was a locomotive man and how much he was a coachbuilder. He had come from the Great Western and most of his original locomotive work on the Great Eastern was in fact carried out by Fred V. Russell, who certainly had much to do with the 'Claud Hamiltons', a later example of which is shown above. But the Antwerp Continental coaches were certainly inspired Holden work. The G.E.R. Directors wanted *all* main-line stock to be clerestoried, until 'Jimmy' told them how much extra that would cost.



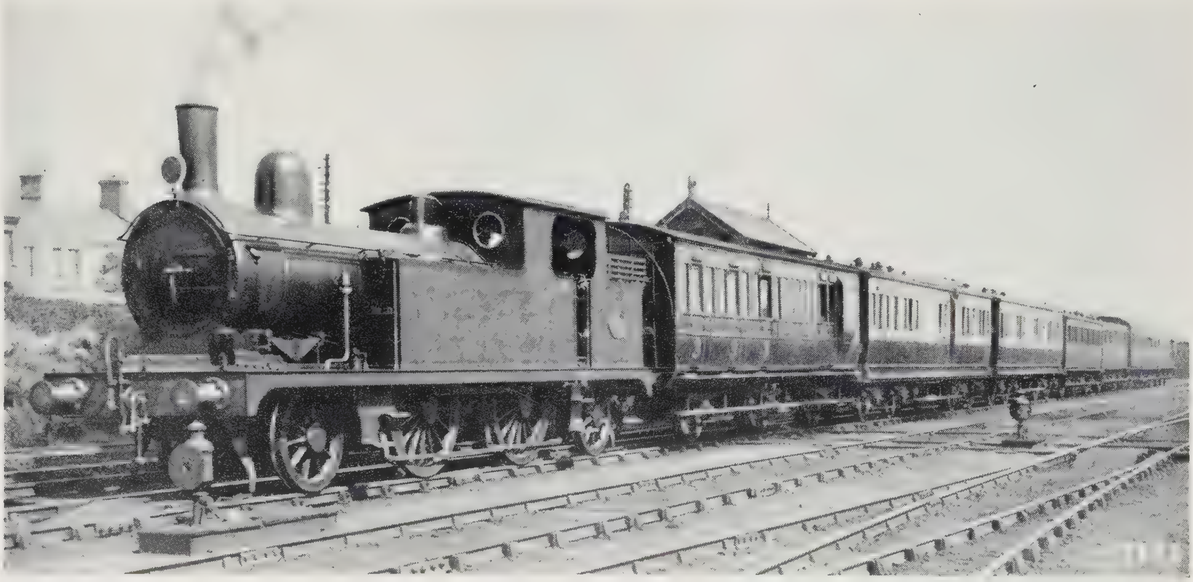


Left: Except for motive power and vehicles, and for the disappearance of the great clock, Liverpool Street Station has changed little down the years. This view, with its exclusive array of six-wheelers beside the 'Claud', dates from the time of Edward VII.

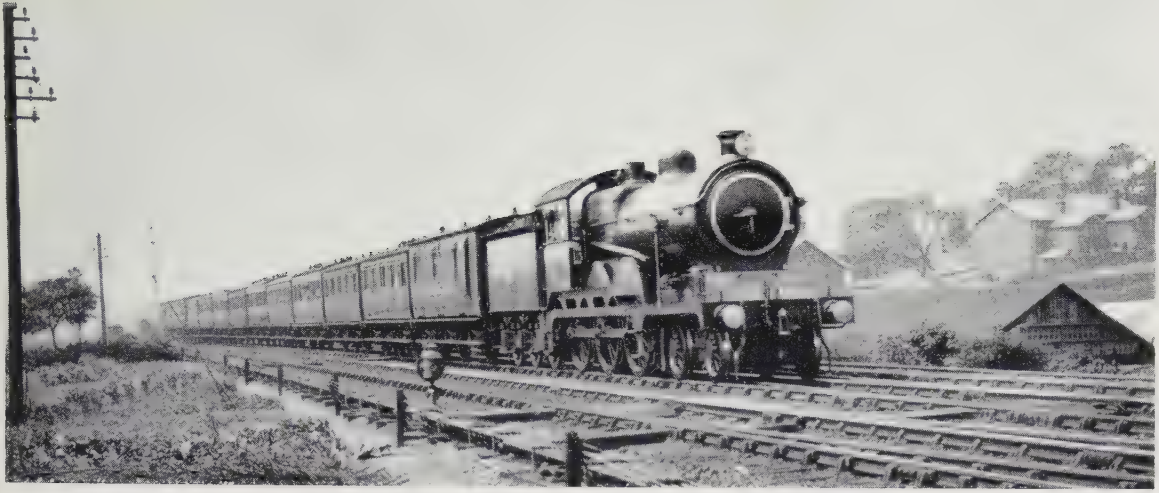
Above: Another 'Belpaire Claud', burning liquid fuel (an unholy residue from oil-gas coach-lighting installations) heads a Great Eastern train of more modest sort than the splendid things allowed to the Continental services. All the same, once outside the suburban area, Great Eastern trains were unusually comfortable.



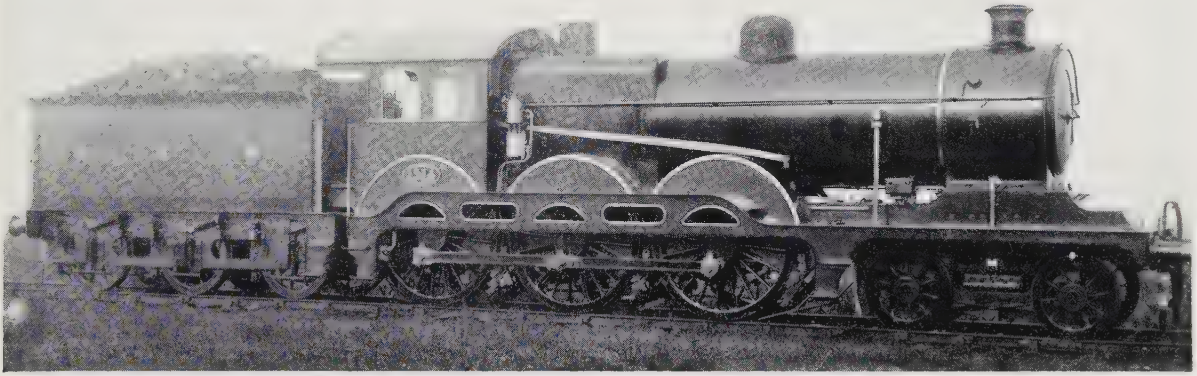
To us at least, and probably to a good many other people who knew the line, this view of Cromer epitomises the Great Eastern scene. Everything is there; the Holden mixed-traffic 2-4-0 engine, one example of which survived to be the last of the type at work in Great Britain; the very mixed rolling stock with a high proportion of six-wheelers, the very elegant semaphores and the smooth ballast above the foot of the rail.



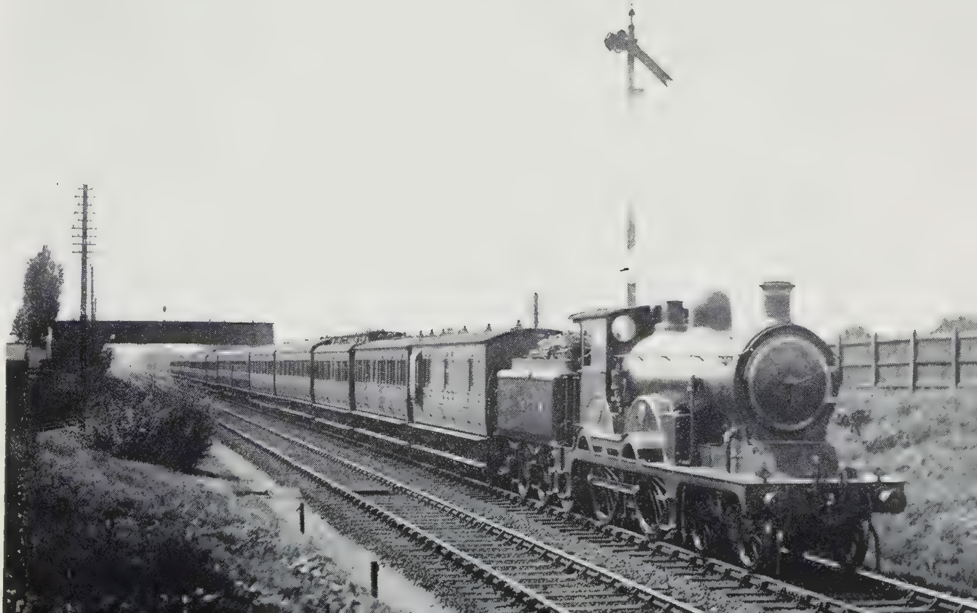
G.E.R. territory, although monopolising the haunch of England, marched with many other people's, and there was some through working, hence the presence of two London & North Western lavatory composites, second and third from the neat bunker of a T. W. Worsdell tank engine.

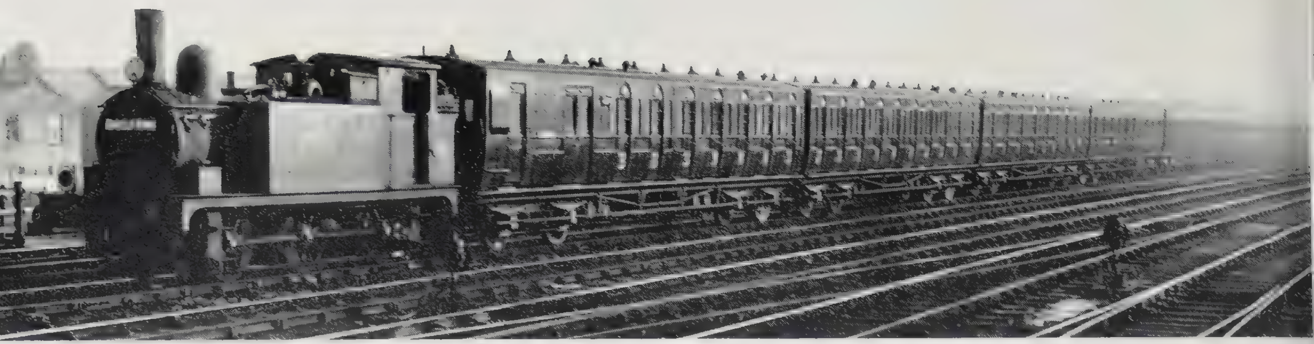


Action and repose of the Great Eastern 'B12' 4-6-0 express engine, brought out under S. D. Holden in the immediate pre-1914 years for the 'Norfolk Coast' and other heavily loaded East Anglian expresses.

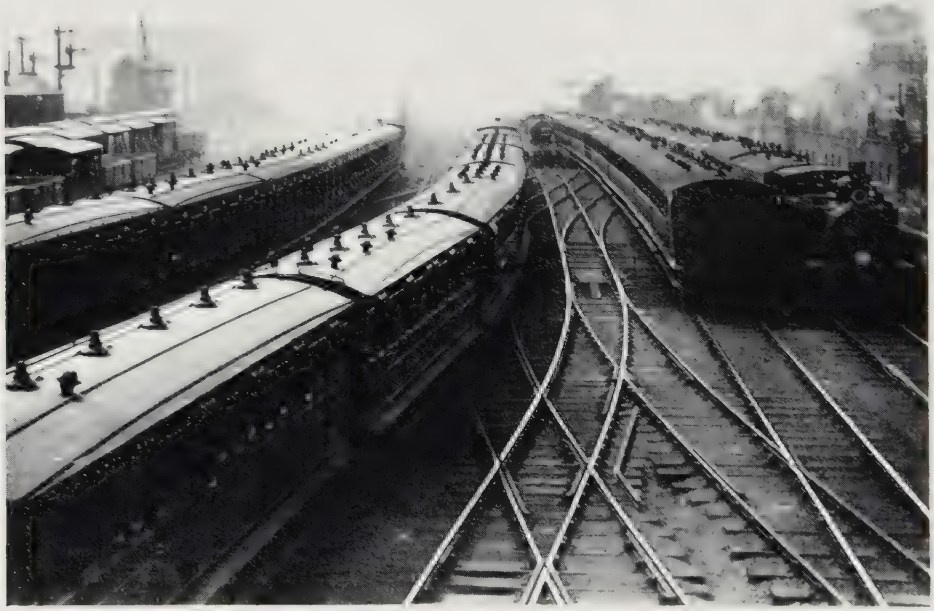


One of the original 'Claud Hamilton' class 4-4-0 engines, which first appeared on the Great Eastern in 1900, and at the time seemed unusually massive. This one has the turtle-decked Holden tender, originally designed as a supporter of oil-fuel tanks. The coaches are mixed, as usual.

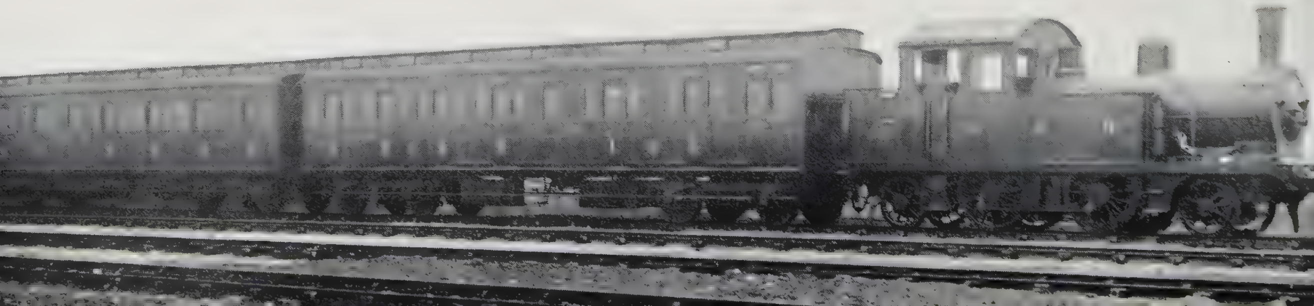


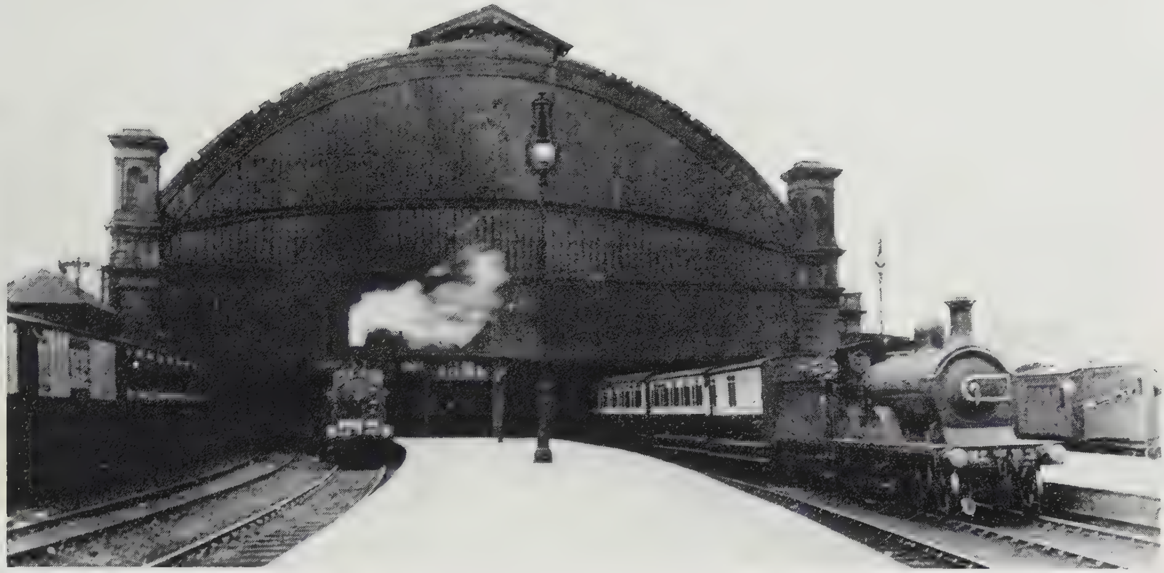


Chiefly a coaching page. *Above* is a train of the 'wide' suburban carriages with which James Holden solved the seating problem on crowded suburban trains. He simply reversed the conversionary practice he had used on the Great Western in narrowing old broad-gauge stock. *Left* one sees the Great Eastern in action at Bethnal Green on the densest steam-hauled commuting traffic in world history.

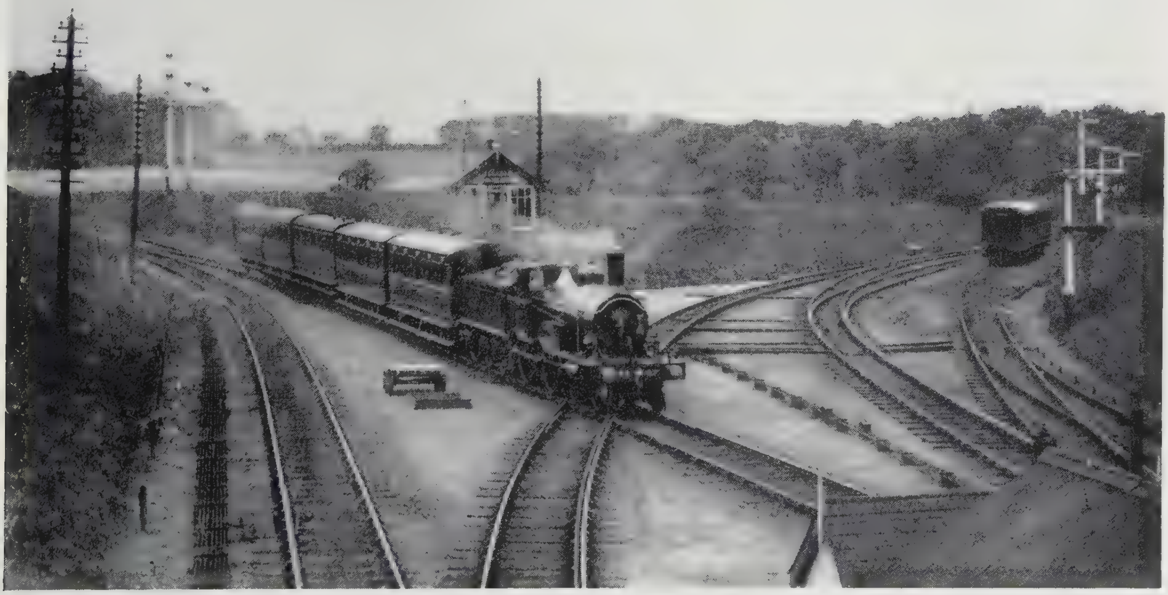


Below: The coming of corridors to the best Great Eastern expresses surprisingly released what were then quite elaborate main-line coaches for local traffic. Places from Palace Gates to Saffron Walden found themselves favoured with this sort of pull-and-push train. The little 2-4-2 tank engines were specially designed for country branch work, early in the present century.

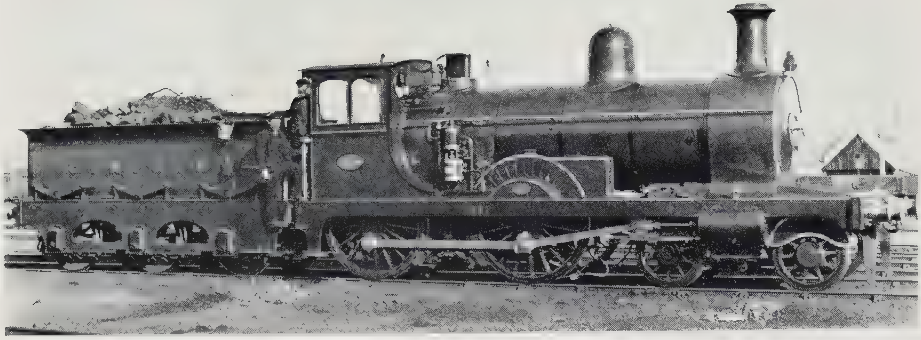




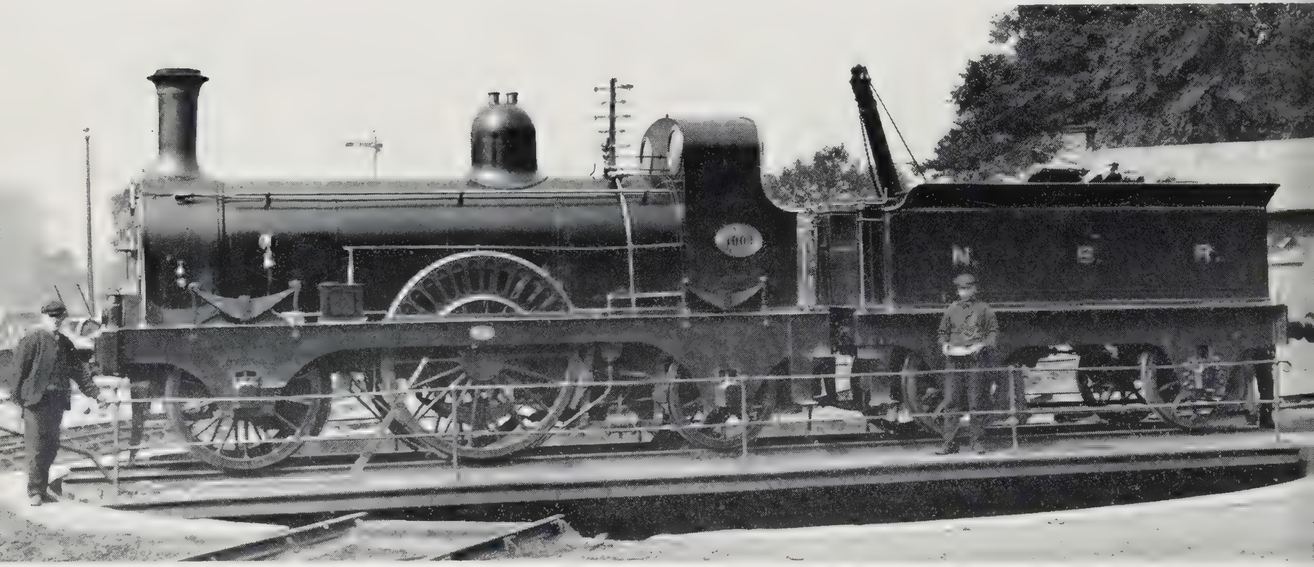
Aberdeen, the old Joint Station, in the early nineteen-hundreds. On the right is a Deeside train of the Great North of Scotland Railway, on the left a Drummond engine of the Caledonian.

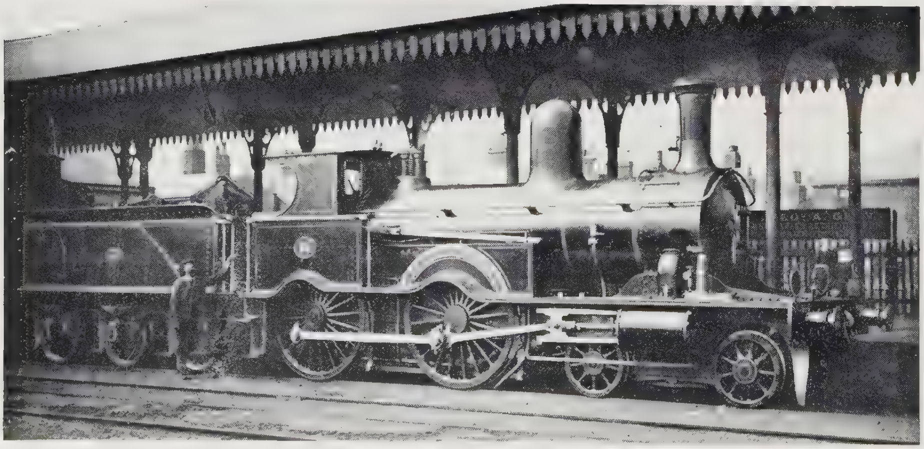


Midland & Great Northern Joint: Melton Constable (delicious name!) was the real centre of this undertaking. Here an ex-Eastern & Midlands Beyer, Peacock engine is bringing a train in from the Lynn direction, with the Sheringham line on the right.

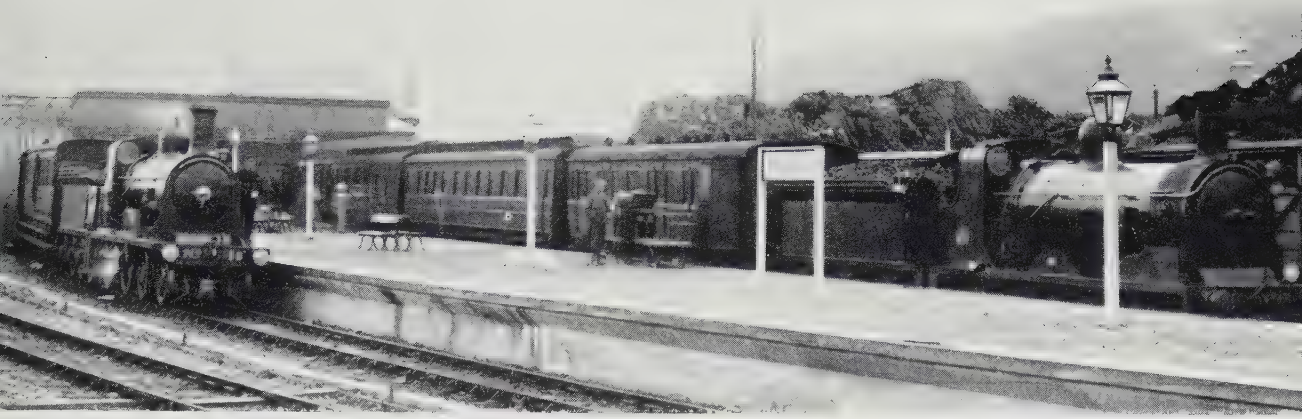


Scottish mutations. The Great North's engine (*left*), by William Cowan, has merely been rebuilt by William Pickersgill since she was built in the 'seventies. North British No. 1009 (*below*) was the old No. 55 which began as a Crampton rear-driver in 1848, was rebuilt so much that little remained except the carrying wheel centres, and is here shown with an 1877 boiler put on in 1897. She lasted until 1907 – sixty gloriously chequered years.

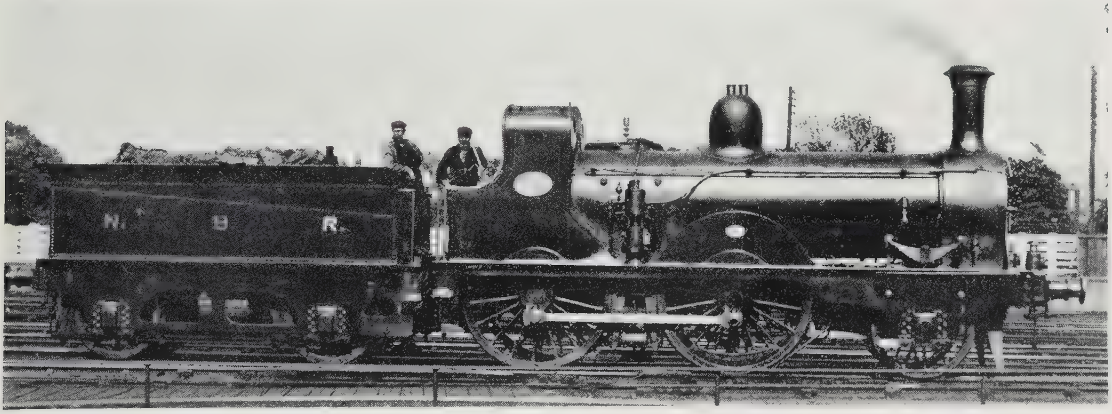




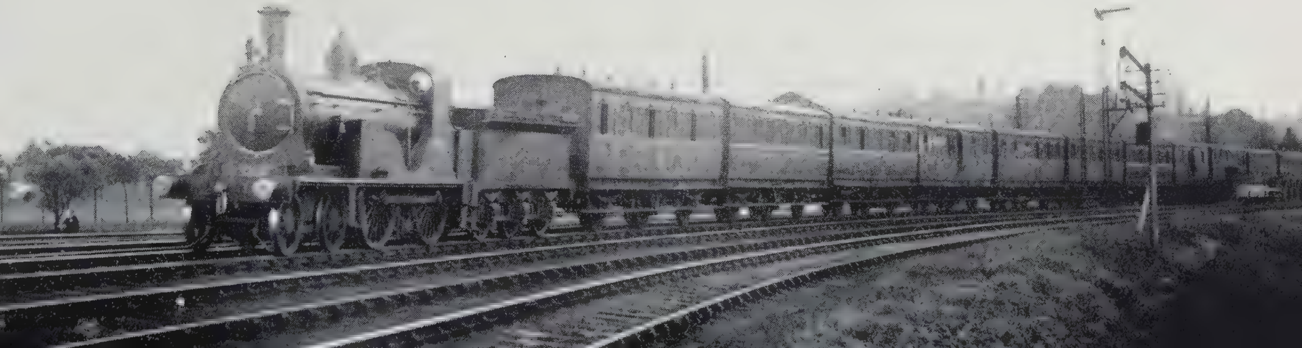
Eastern & Midlands No. 26, a design of the early 'eighties by Beyer, Peacock & Company, with strong suggestions of William Adams. The jack on the platform might be useful in the wilds of North Norfolk. The height of the dome must have been a record, at least outside Russia!

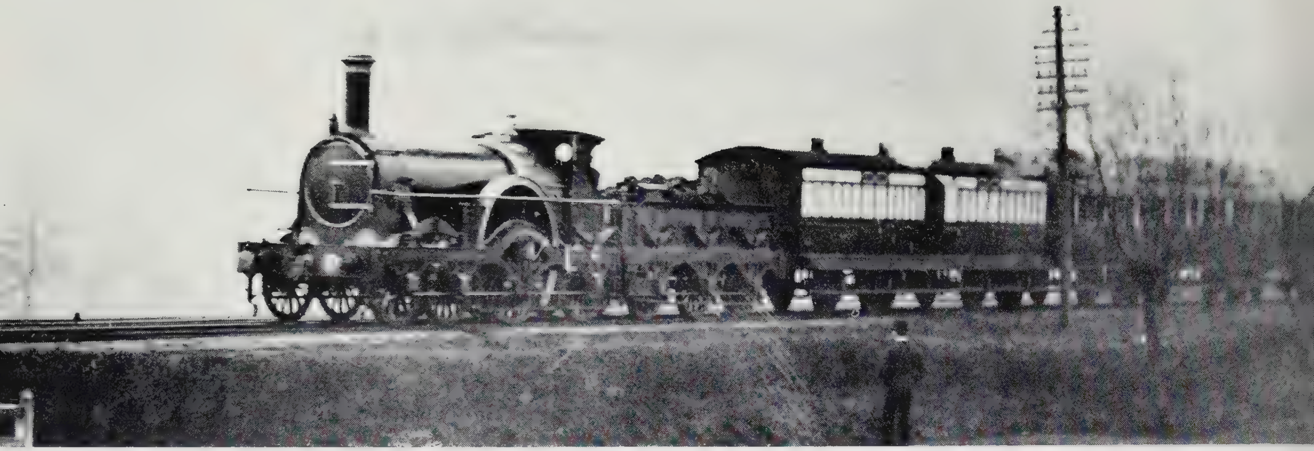


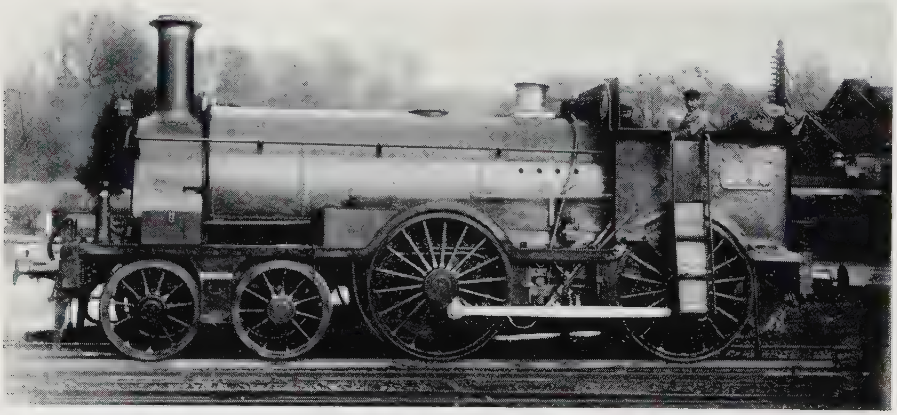
Mallaig; a bleak afternoon. The time is soon after the opening of the West Highland Railway in 1898. On the left is one of Matthew Holmes's special West Highland 4-4-0 engines; right, with two East Coast Joint and one Midland coach, is a standard Holmes N.B.R. 18 in. goods. The West Highland line never saw such modest creatures as N.B.R. No. 386 (*below*), built by Neilson in 1867 and rebuilt about 1890.



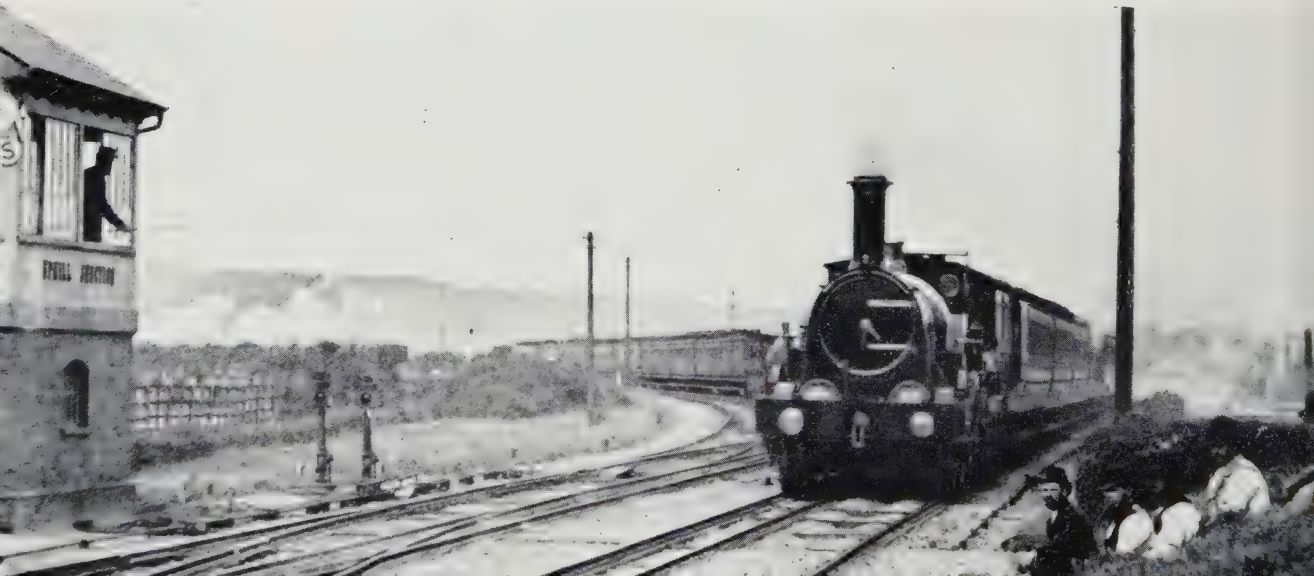
Below is that wide-splayed northern approach to Carlisle, where one could see the best expresses of three of the five Scottish railway companies. The North British train is bound for Silloth – still in England – and is headed by one of Matthew Holmes '633' class of 1891.

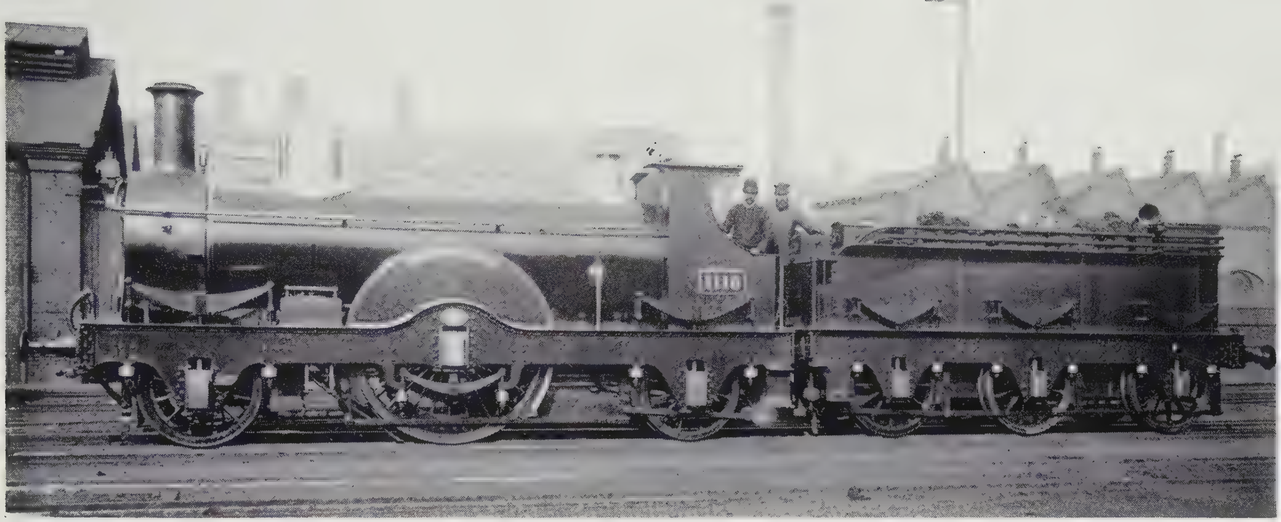




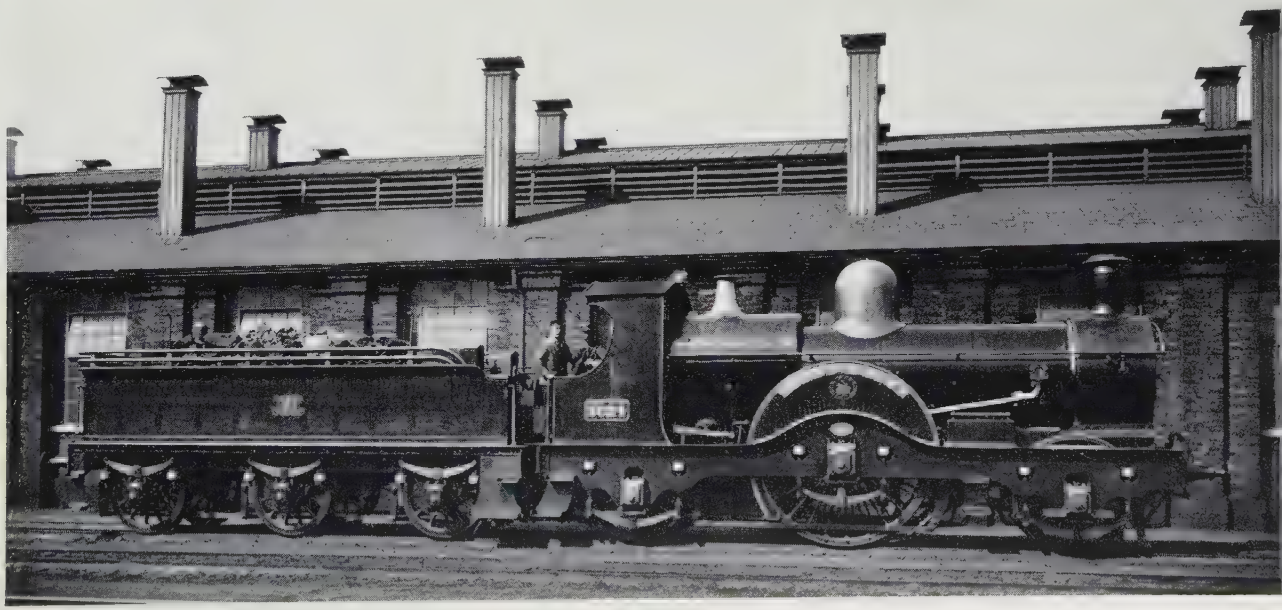


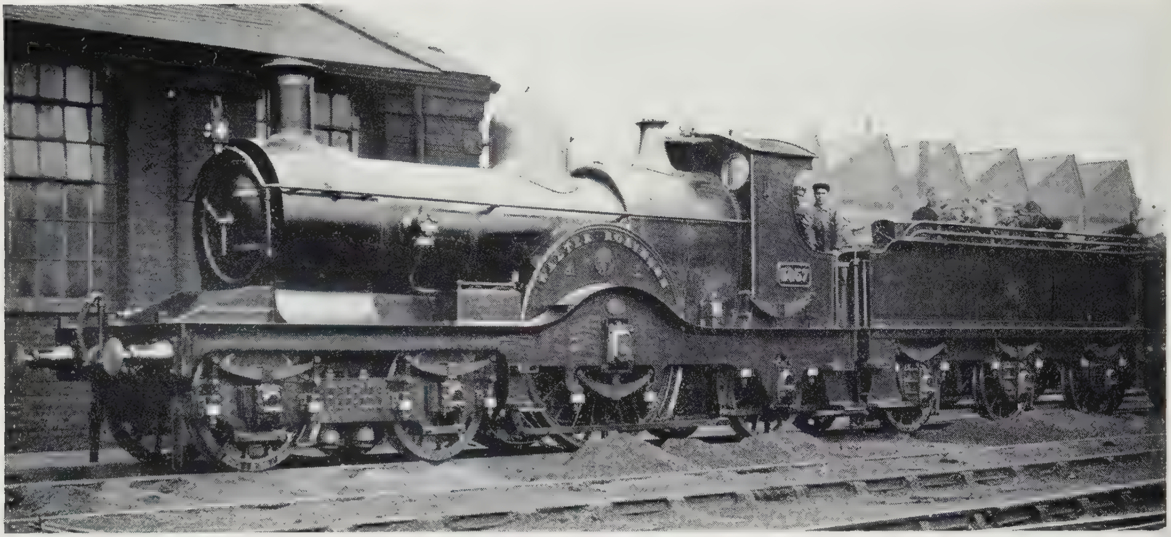
Twilight of the broad gauge on the Great Western Railway. *Above* and at *bottom* are two of the 8 ft singles. Behind the tree in the upper view is one of the spacious coaches of the middle 'seventies, 10 ft 6 in. wide. The van and the coaches in the lower view, at Uphill Junction, have narrow bodies for more easy conversion. The tank engine was one of several varieties, built over many years, and used chiefly in Devon and Cornwall.



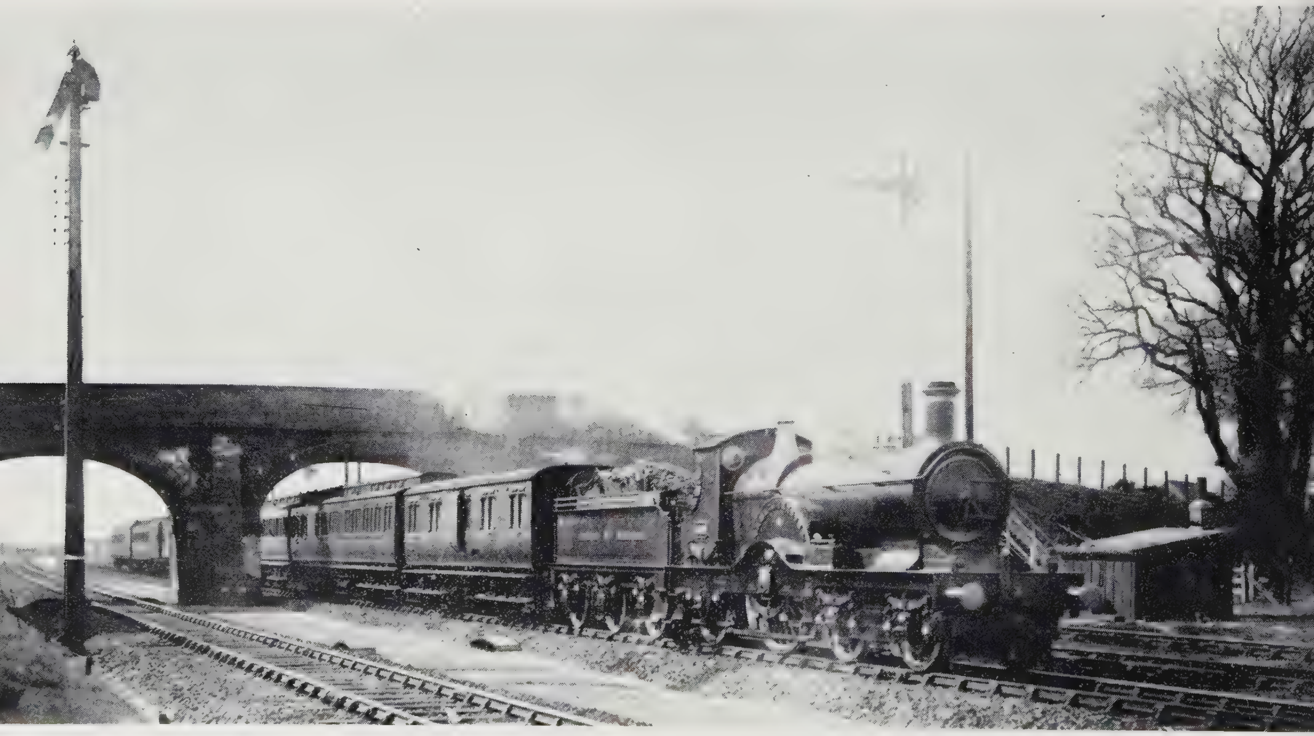


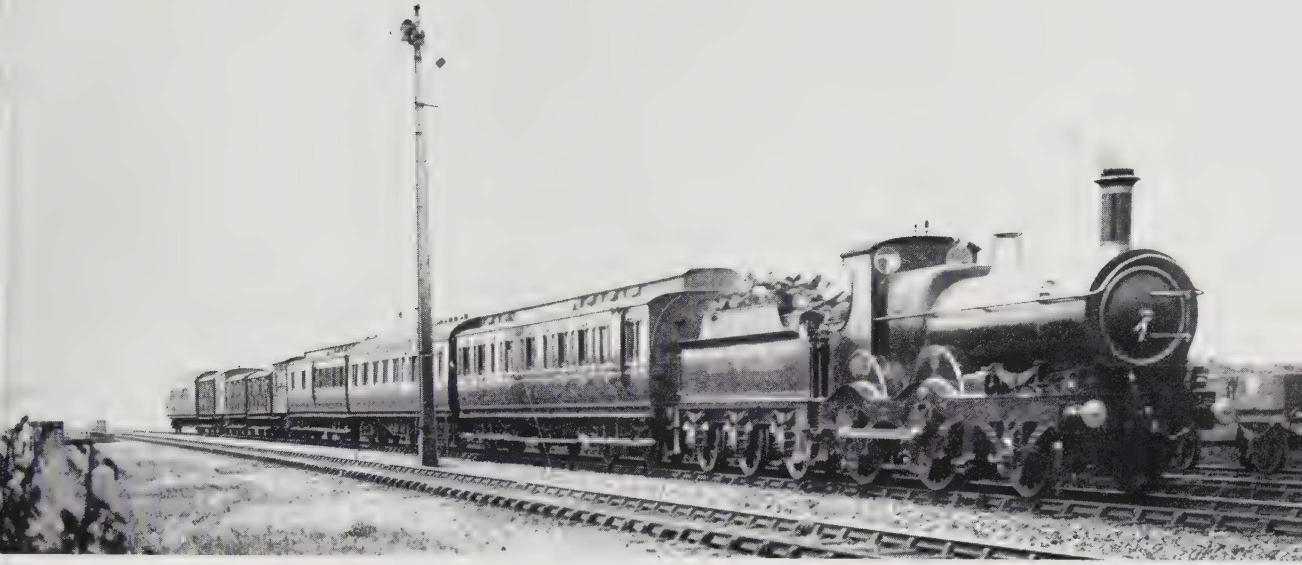
William Dean was a traditionalist, but his Great Western conventions were not invariable. He liked double frames and always used inside cylinders, but his boilers might be flush-topped with the dome on the first ring, as in the somewhat rebuilt seven-footer *Prince Christian* (*above*), or with a raised steam space supplementing a big dome on the second ring, as in *Storm King* (*below*). The latter was of the first series of his big single expresses, all of which were equipped with leading bogies after an accident caused by a broken leading axle. Some of them had begun as broad-gauge convertible engines, with the wheels outside both sets of frames.





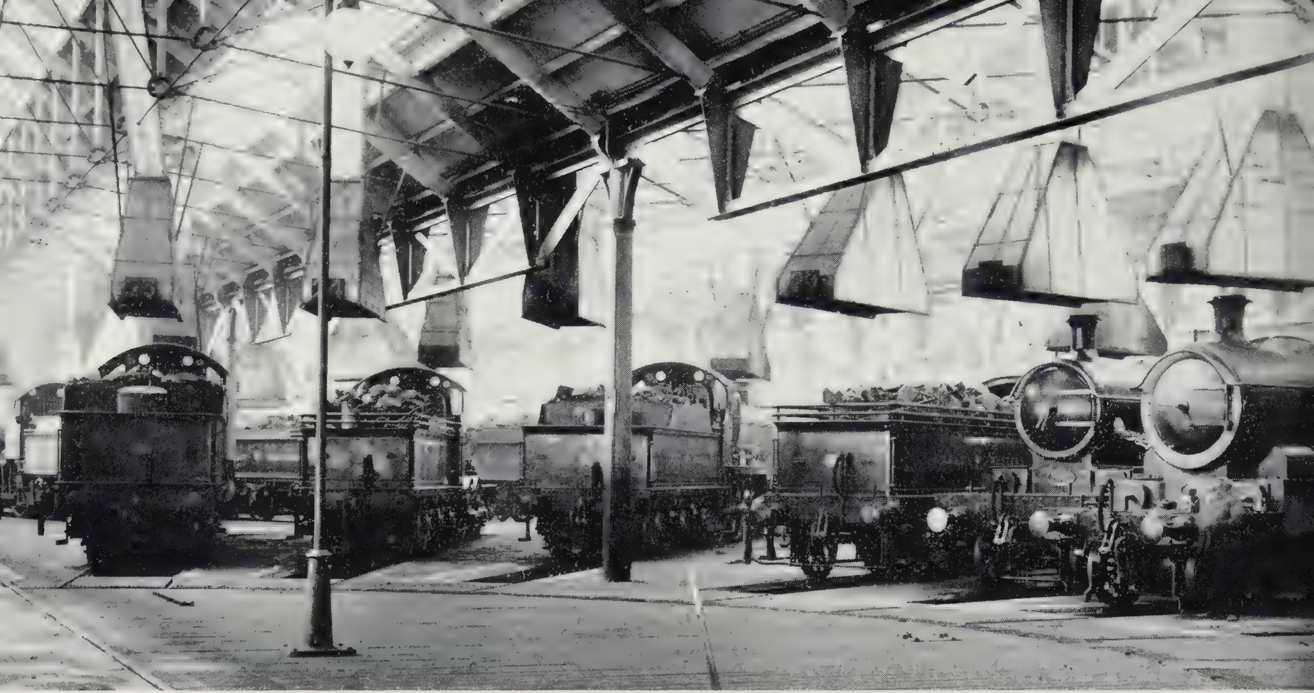
Great Western No. 3057, *Walter Robinson*, exemplifies Dean's final version of his 7 ft. 8½ in. single expresses, the 3031 class, built from 1894 to 1899. Unlike the 3001 class, they always had bogies. Visually they were among the stateliest locomotives of nineteenth-century England, and their splendour somewhat consoled those who mourned the passing of broad-gauge glories. In the lower view one of the same class heads an express through the Thames Valley.



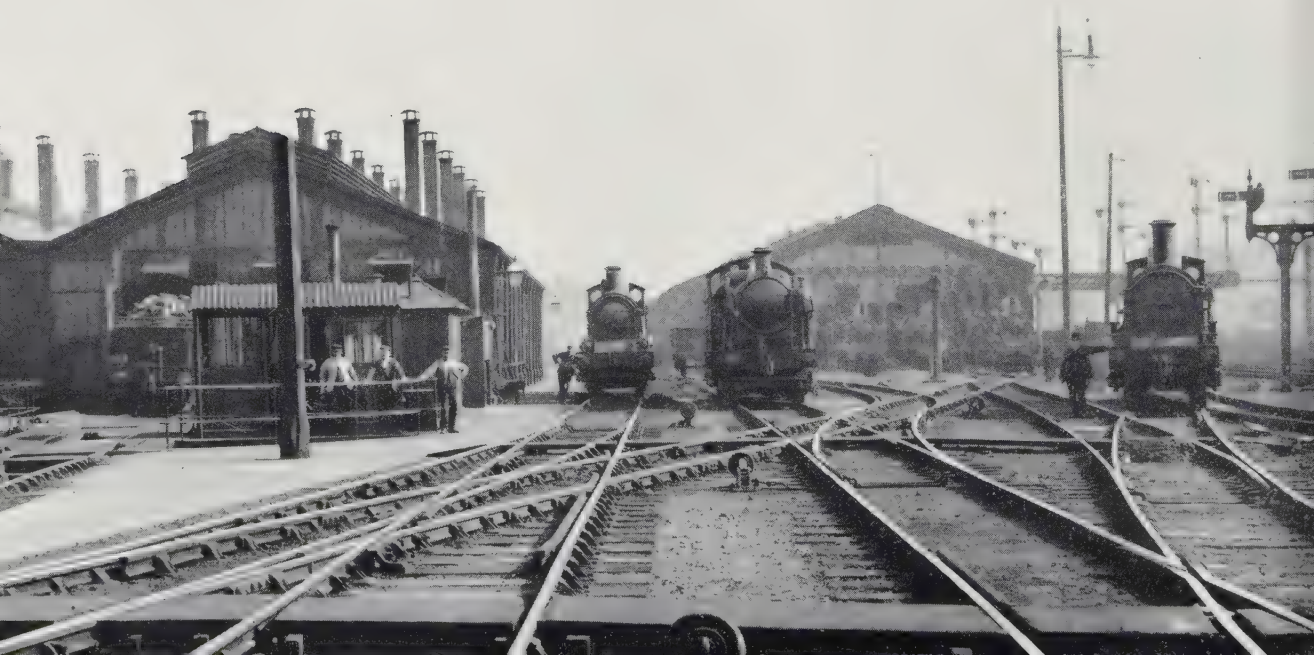


Great Western Railway: The 'Barnums'. They dated from 1889 and were the last to incorporate the old Gooch-Stephenson type of slotted sandwich frame, which dated back to far-off beginnings. This specimen has acquired a domeless boiler, Belpaire firebox and somewhat extended smokebox, and heads an express (see headcode) accompanied by considerable milk.

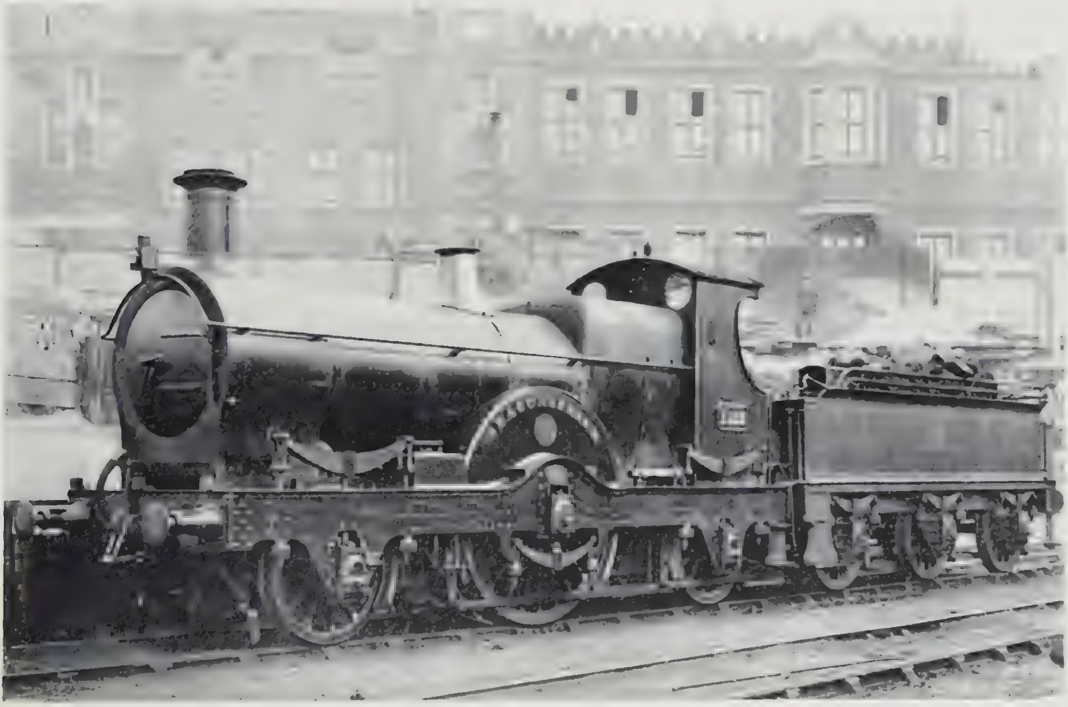
One of the 3031 class heads a lightly loaded express on the sea-wall beside the Teign estuary at Teignmouth. [*H. Gordon Tidey*



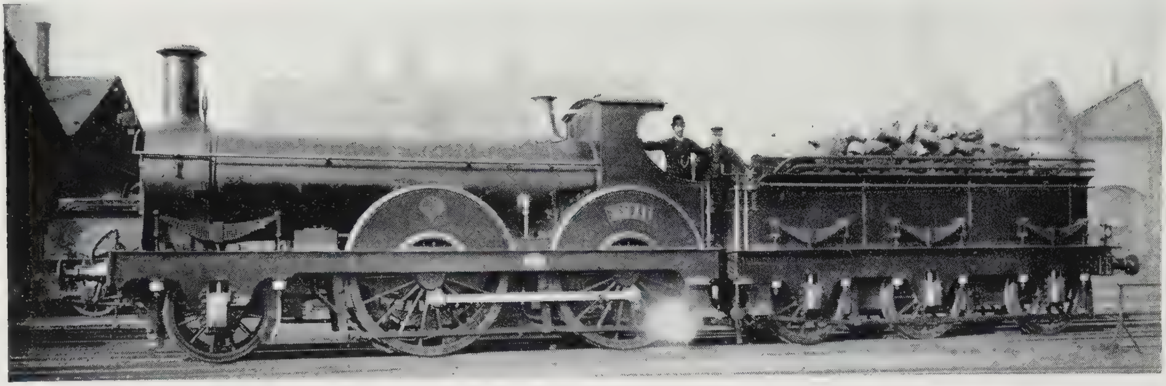
Great Western locomotive sheds were variable. Some were archaic, some very modern. Old Oak Common, Acton (*above*), came to succeed the ancient shed which had served the London area at Westbourne Park (*below*), and was a magnificent example of the compound roundhouse type, the 'house' itself not being round at all, though it contained a succession of turntables with radiating roads and pits.



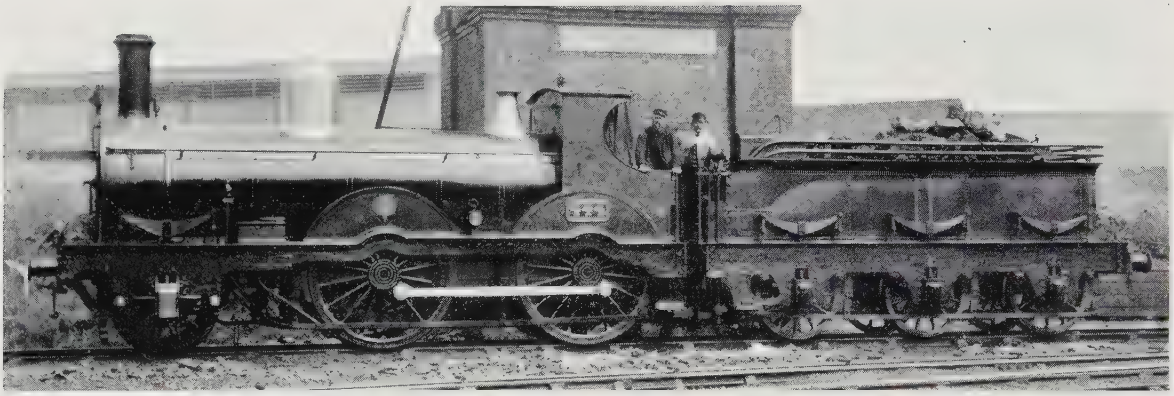
An up Windsor train, headed by one of Dean's mixed-frame 2-4-0 engines, rumbles over the Thames-side marshes.



This is how an early Dean 7 ft. single appeared in old age. *Beaconsfield* was one of the 'Sir Alexanders' of the middle 'seventies, as was the Great Western royal engine *Queen*. They began, except for the latter, with domeless boilers, and the Queen's favourite minister ended with this one—not the original.

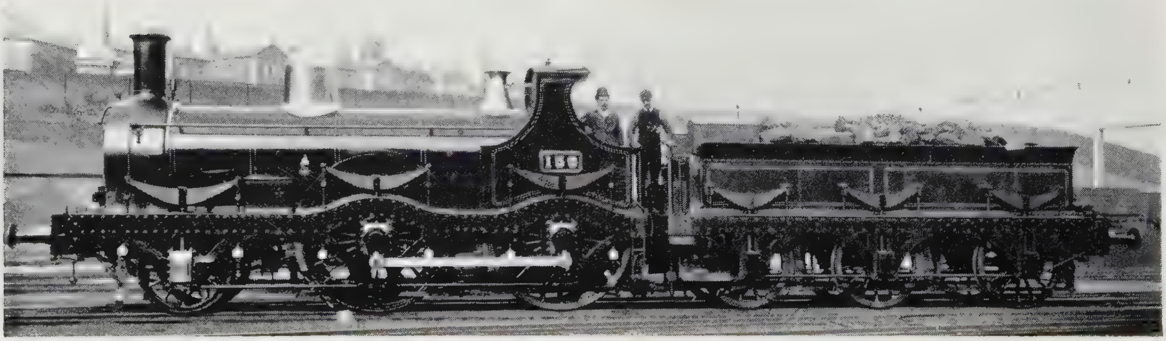


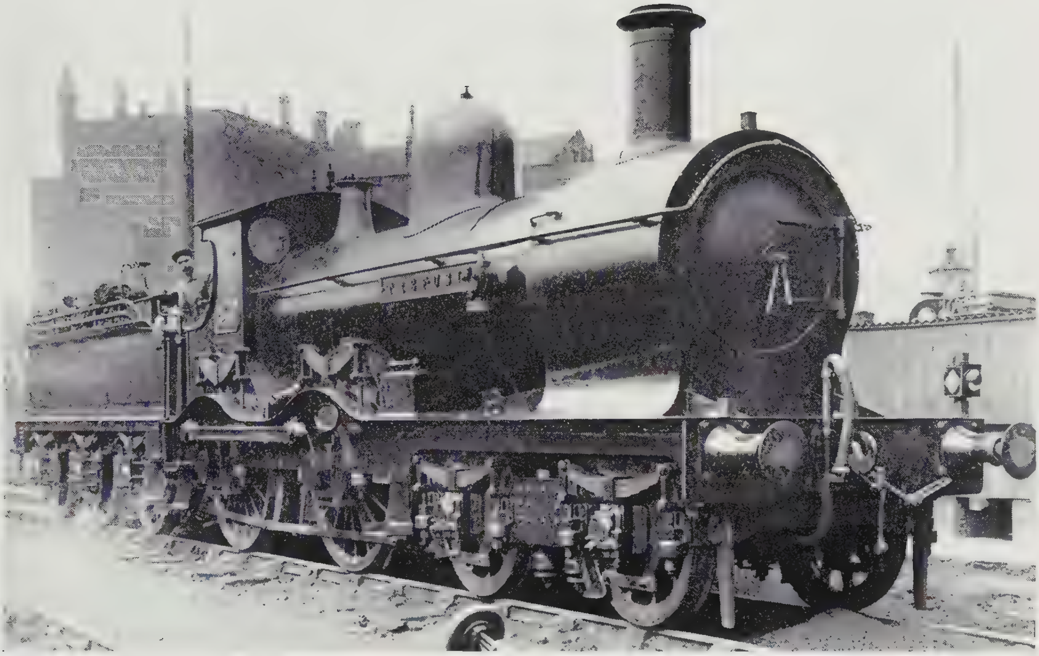
William Dean's 6 ft. 6 in. coupled engines of the early 'eighties, for the standard-gauge lines, were less in the Great Western tradition than their successors (the 'Barnums'). No. 2211 was one of ten with flush-top domeless boilers, built in 1882.



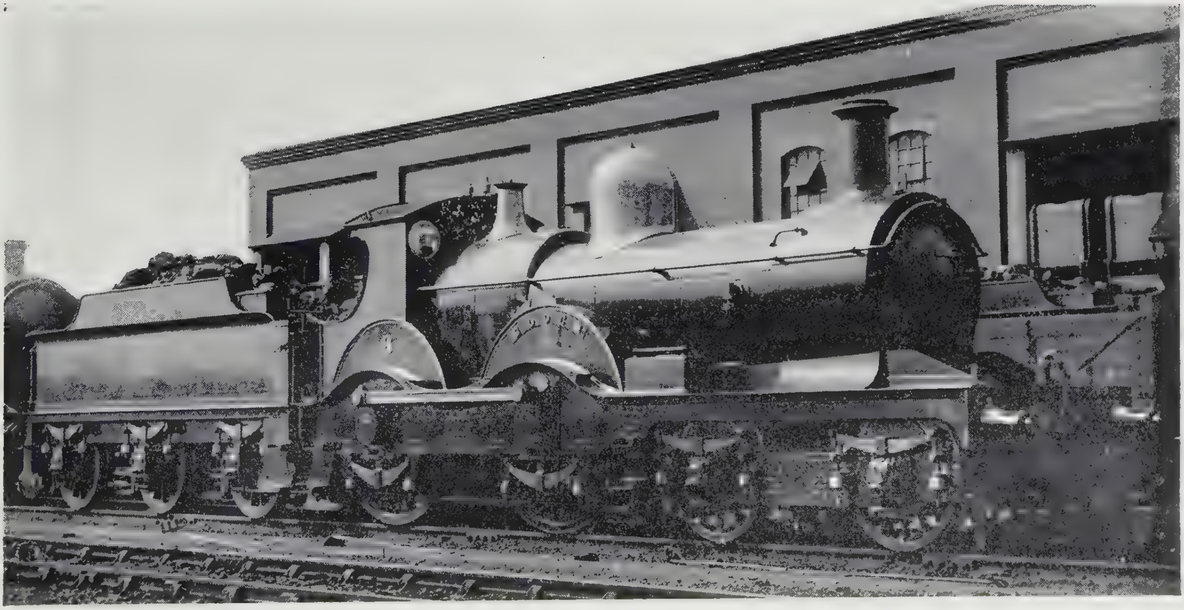
The 'Bicycles' (6 ft. wheels) earned their name by having all the coupled wheels exposed when they were built at Swindon in 1868 and were the only standard-gauge engines made thus. No. 444, however, is shown *above* in her rebuilt form (Wolverhampton, 1885).

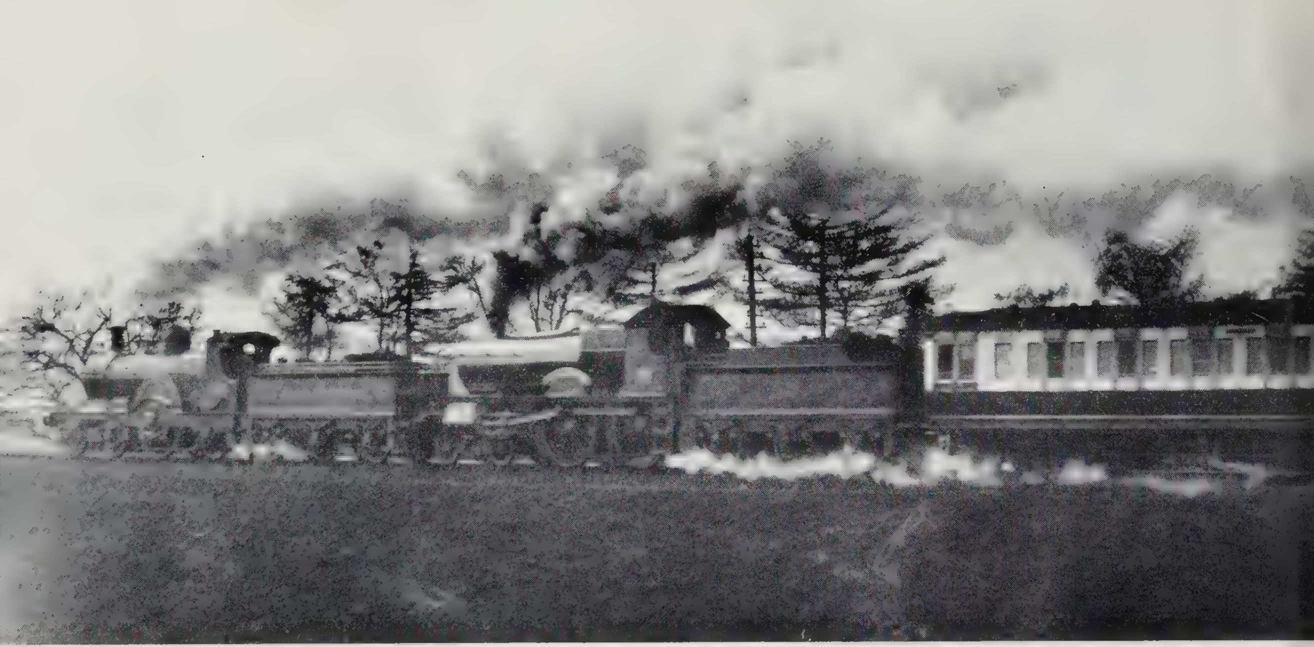
More ancient than the 'Bicycles' were the 'Chancellors', 6 ft. 6 in. engines built by George England at Hatcham Ironworks, London, in 1862, and rebuilt at Wolverhampton during 1878–82 (*below*). Like other Great Western curiosities, they seemed fond of the Shrewsbury neighbourhood.



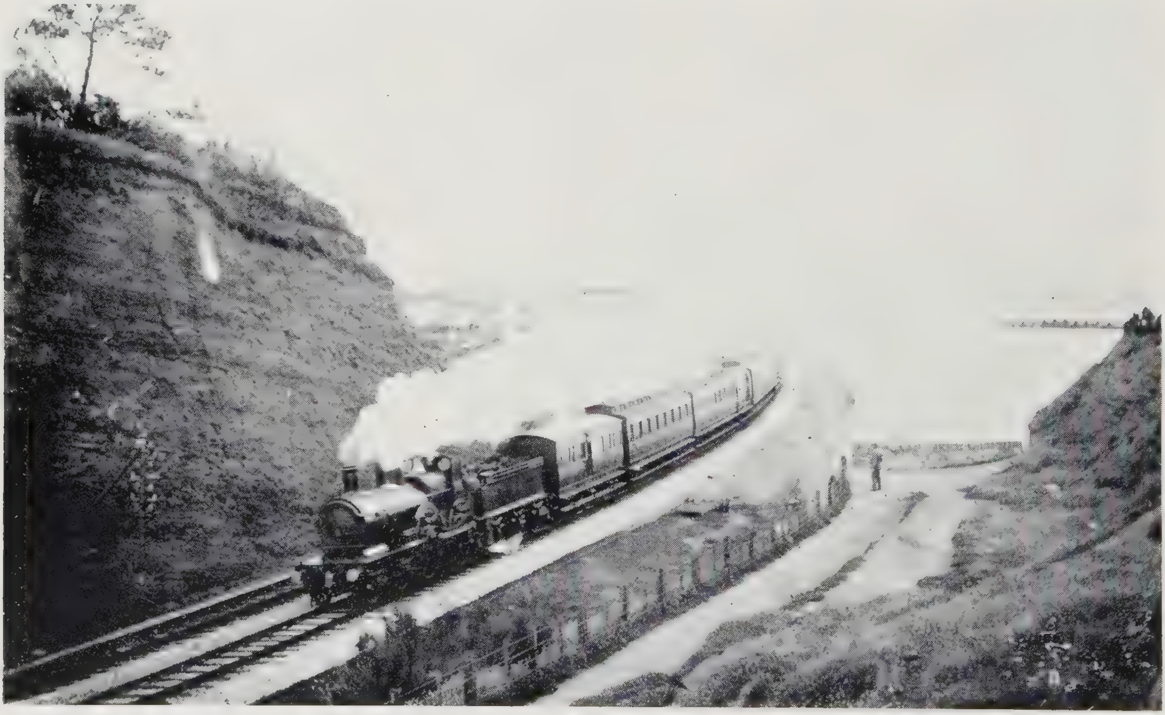


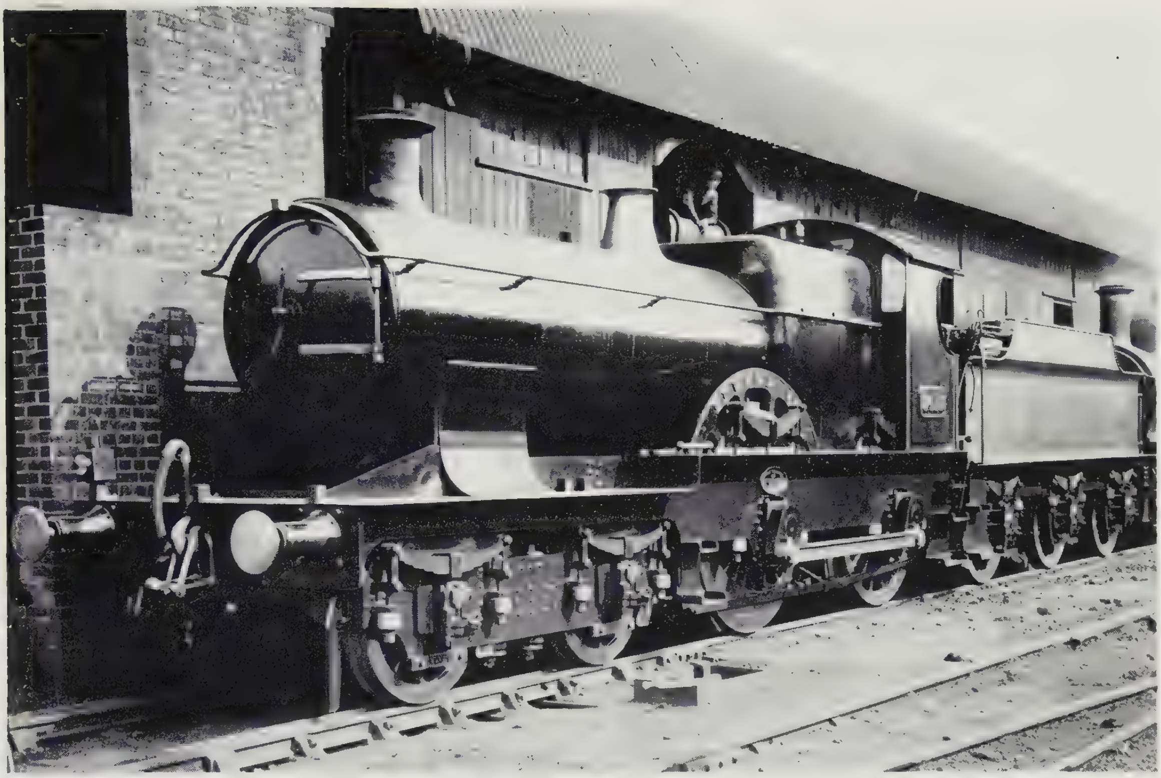
After some unfortunate essays with tank engines, in 1895 William Dean produced the 'Duke of Cornwall' class (*Trefusis, above*) for working expresses west of Exeter, and, later, on other parts of the Great Western which required a combination of high tractive effort and low axle loads. The first Great Western standard-gauge 4-4-0 express engines were four built in 1894; No. 8, *Gooch*, is shown (*below*). They were the only 7 ft. 4-4-0 engines for standard gauge on the G.W.R.



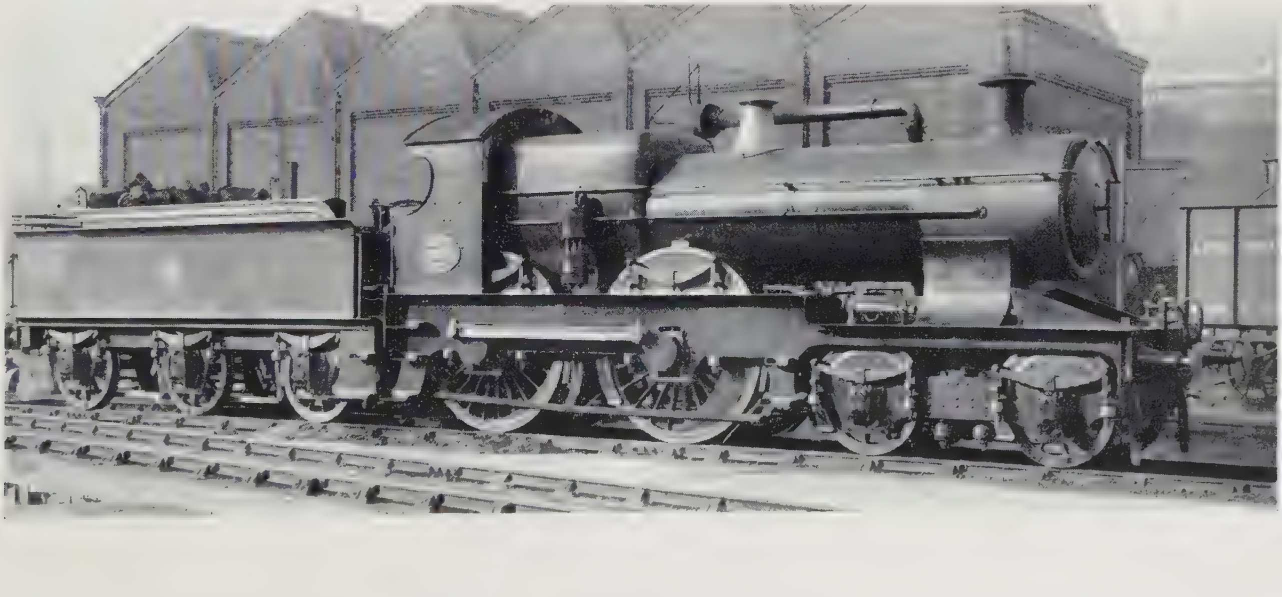


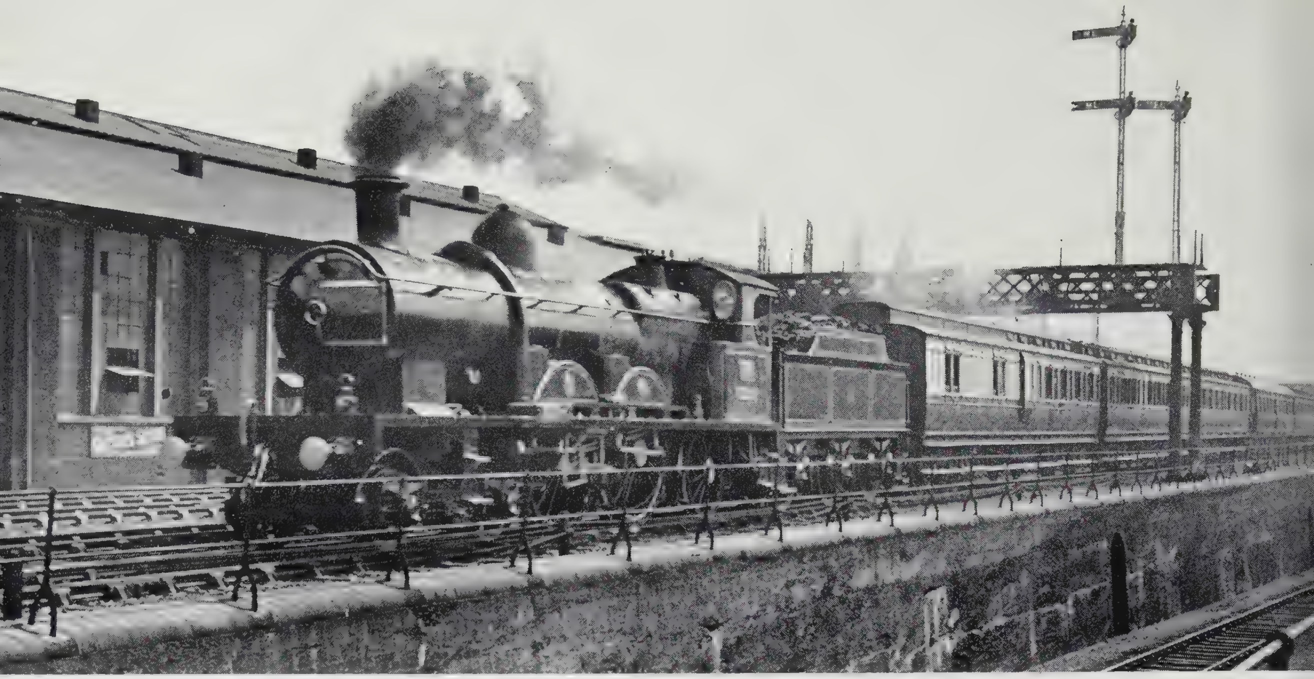
Double-heading was rare on the Great Western, except on the heavy banks in South Devon. Here, however, the train is a north-and-west express via the Severn Tunnel, with a Dean bogie single and one of Churchward's 'County' class. The visible coach is a London & North Western corridor slip carriage. *Below* is a more familiar, coastwise Great Western scene, near Teignmouth, with one of Dean's 'Badmintons' as first built. Riding in an old six-wheel brake-third, next to the tender, could be more exciting than comfortable.



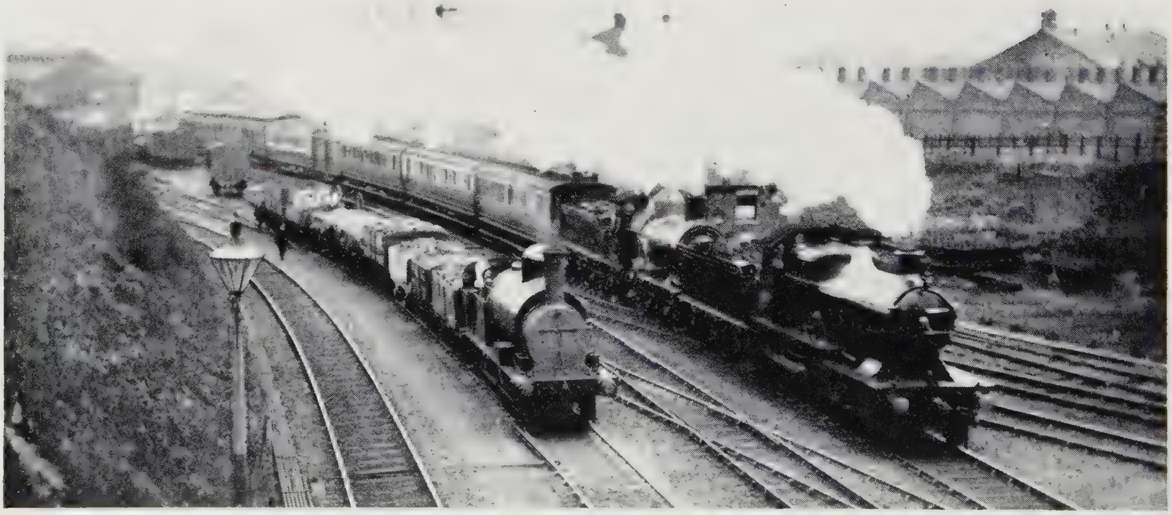


The Dean-Churchward mutation on the Great Western: *Edward VII* (*above*) was one of the 'Bulldogs', describable as a heavier form of the 'Dukes' (see page 79); *White* (*below*) was an 'Atbara', a development of the 'Badminton' and a forerunner of the famous 'City' class express engines. Both have the earliest form of Churchward domeless boiler with a high-topped Belpaire firebox, a parallel barrel and an extended smokebox on a distinctive form of saddle. The original *Bulldog*, however, began with a domed boiler, as did the first 'Badmintons'.

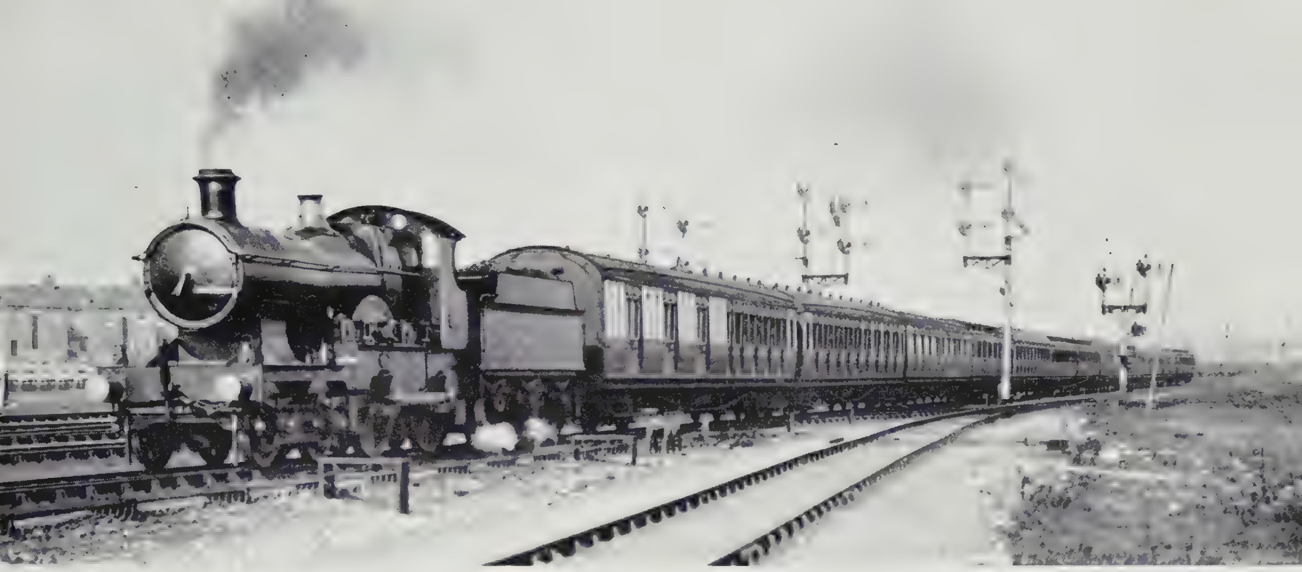




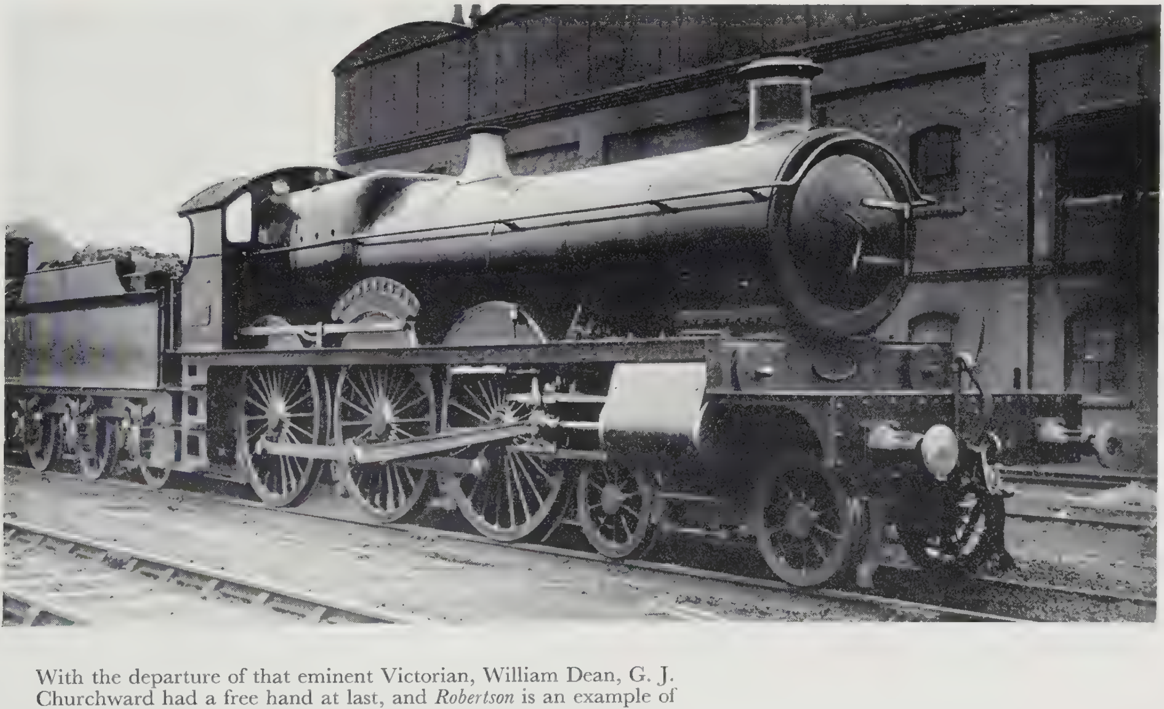
The French lady and the Cornishman: *La France*, the first of the Great Western's imported de Glehn compound Atlantics, arrived in 1903 and is reported to have been at once taken to pieces by G. J. Churchward so that he could find out what made her tick. He said: 'This is watchmaker's work!' After this drastic examination, she and her two younger and larger sisters ran for many years. She is here seen passing the old Westbourne Park shed with an express from Paddington.



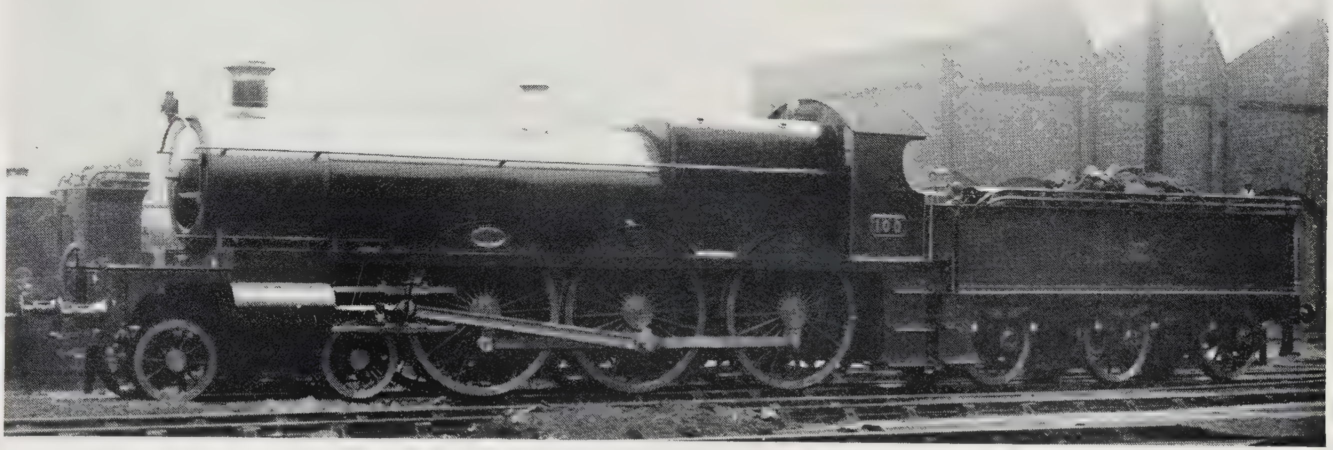
On the Western Marches: A Great Western 'Atbara' and bogie single, with a mixed make-up of Great Western and London & North Western coaches, sweep past an old Ramsbottom saddle-tank engine of the L.N.W.R. outside Shrewsbury.



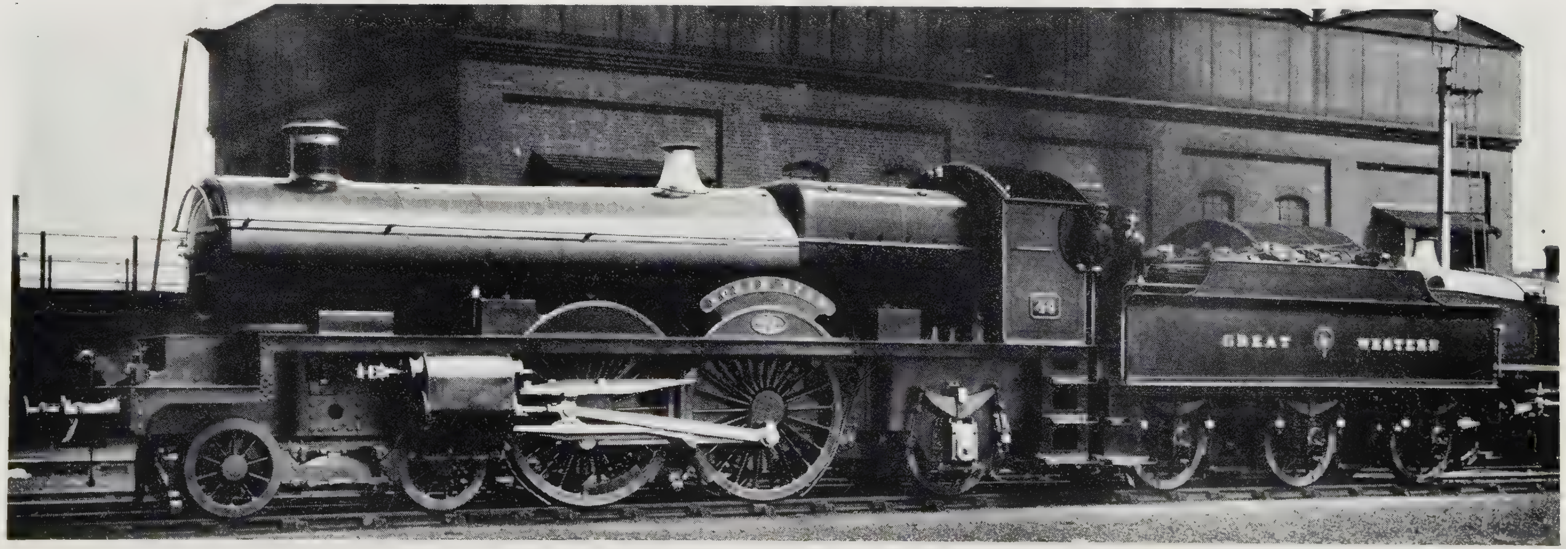
On the Great Western the 'City' class presented the operational ultimate of the Dean-Churchward engine. It was powerful, reliable and extremely fast. Here one of them heads an eleven-coach train past Friars Junction. Not least interesting in the view is the clipper-section coaching stock with recessed flat doors, a development of what William Dean had called the 'bay-window' carriage.

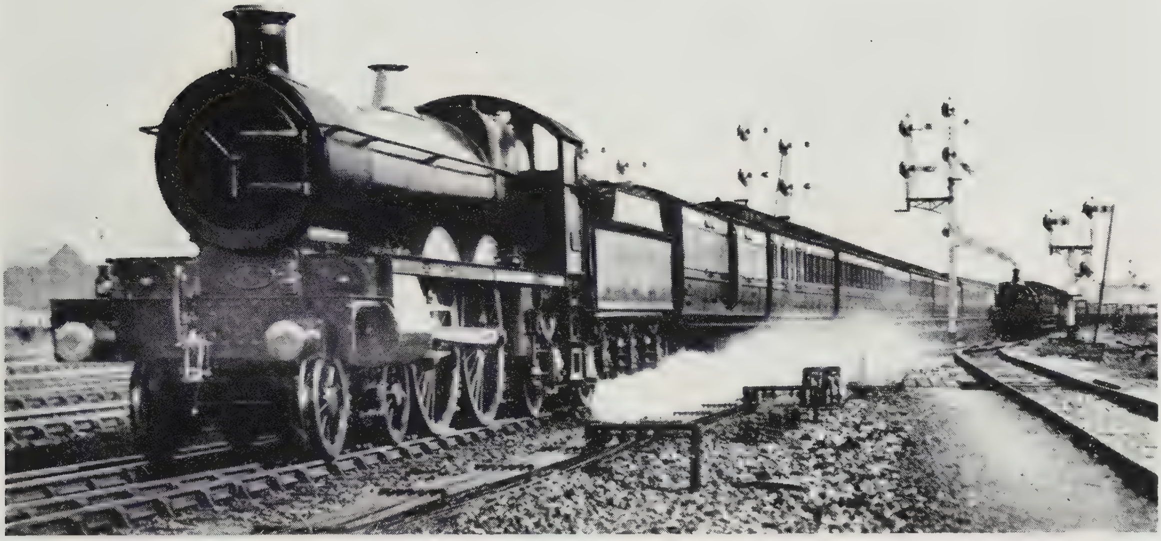


With the departure of that eminent Victorian, William Dean, G. J. Churchward had a free hand at last, and *Robertson* is an example of his early work – of the class that came to be known, from a naming series, as the 'Saints' – large wheels, large boiler, long stroke, long laps, long valve-travel.

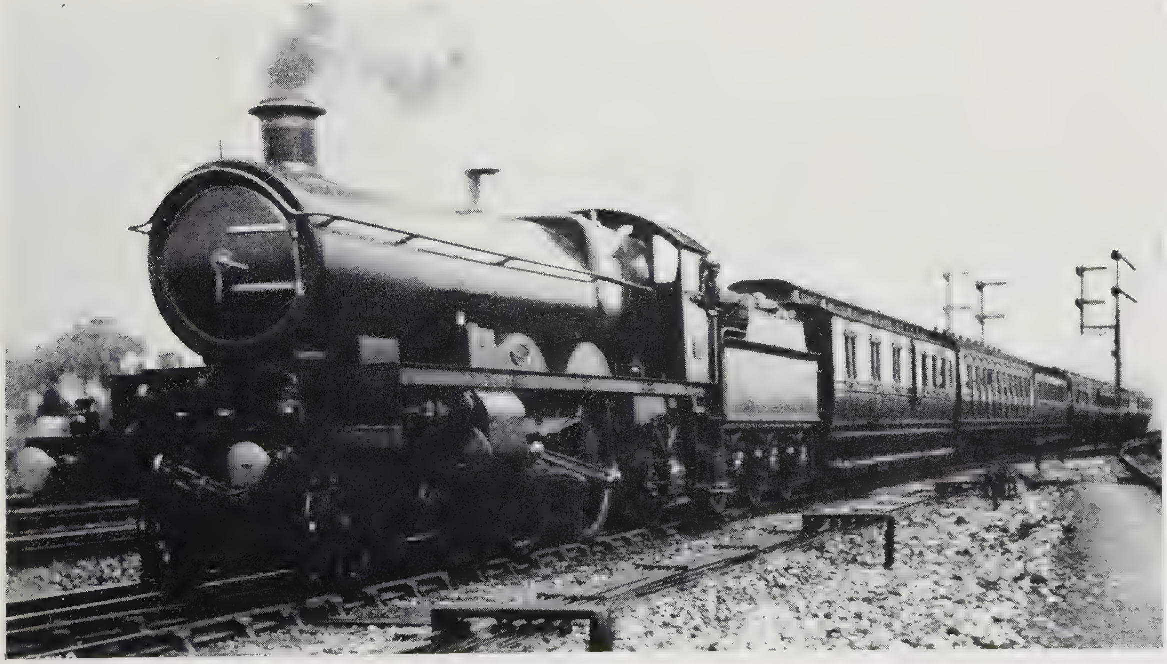


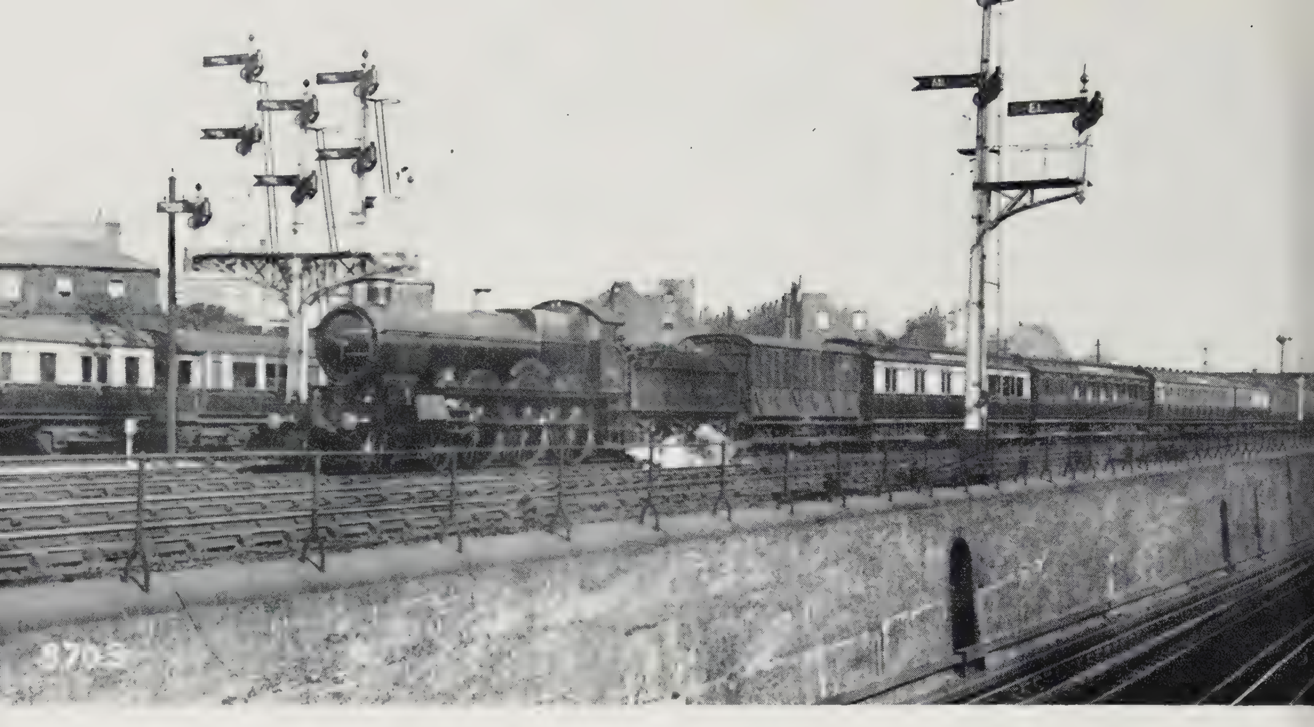
In the nineteen-hundreds, there was still a feeling that the fewer wheels coupled, the more free-running the engine. These two illustrations show Great Western types at the period of uncertainty. The first G.W. express passenger 4-6-0 was William Dean's No. 100 (*above*), seen as built in 1902 with parallel boiler and raised Belpaire firebox. Then G. J. Churchward put the question to the proof by building mechanically identical engines that varied just thus far – they had four- or six-coupled wheels, and here is the four-cylinder *North Star* (*below*) as an Atlantic. Six-coupled wheels had adhesive advantages, and no disadvantages compared with four-coupled. These splendid four-cylinder engines did some of the best work in the world. From them the 'Castles' and the 'Kings' of later years were descended.



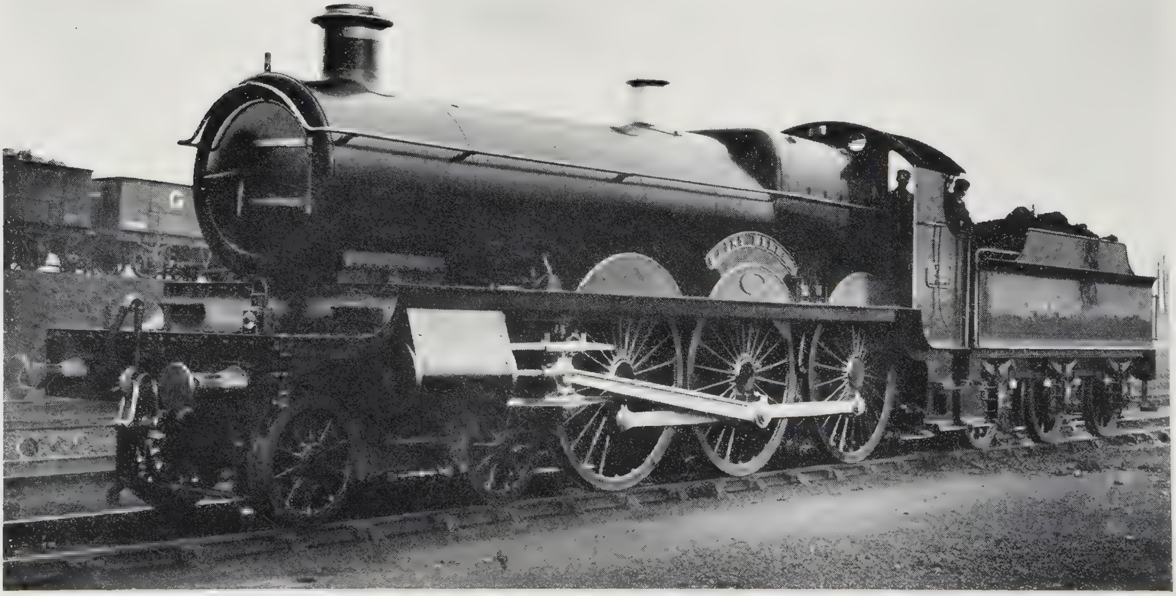


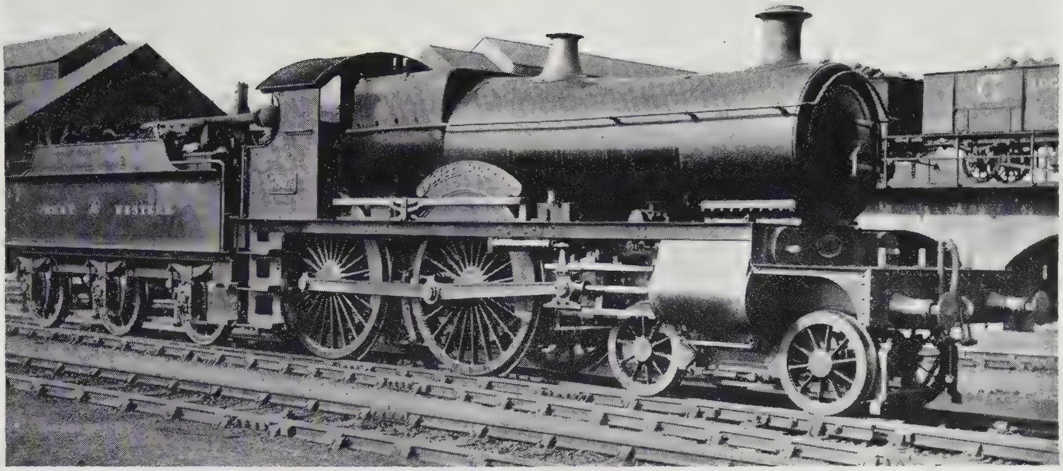
The four-versus-six test was carried out with both two- and four-cylinder engines, and in these views, taken on the same spot about fifty years ago, we see both a 'Saint' and a 'Star' running as Atlantics. The domeless taper boiler, which had distinguished the 'Cities', became the standard Great Western form for all except small engines. Coincident with the change came the coaching one, from clerestory to clipper (the Midland Railway, be it remarked, combined the two.





The Churchward two-cylinder 'Saint' 4-6-0 in action and at rest. The example above has the earlier style of angular framing about the cylinders, and below the cab; it is heading a down express out of London past Westbourne Park. *Saint Helena* (*below*) has the later and more graceful curved framing.

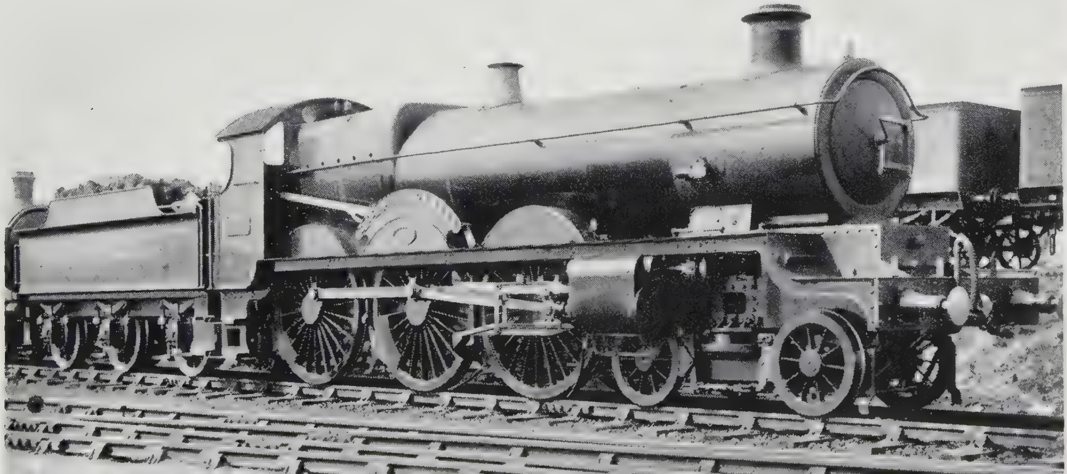


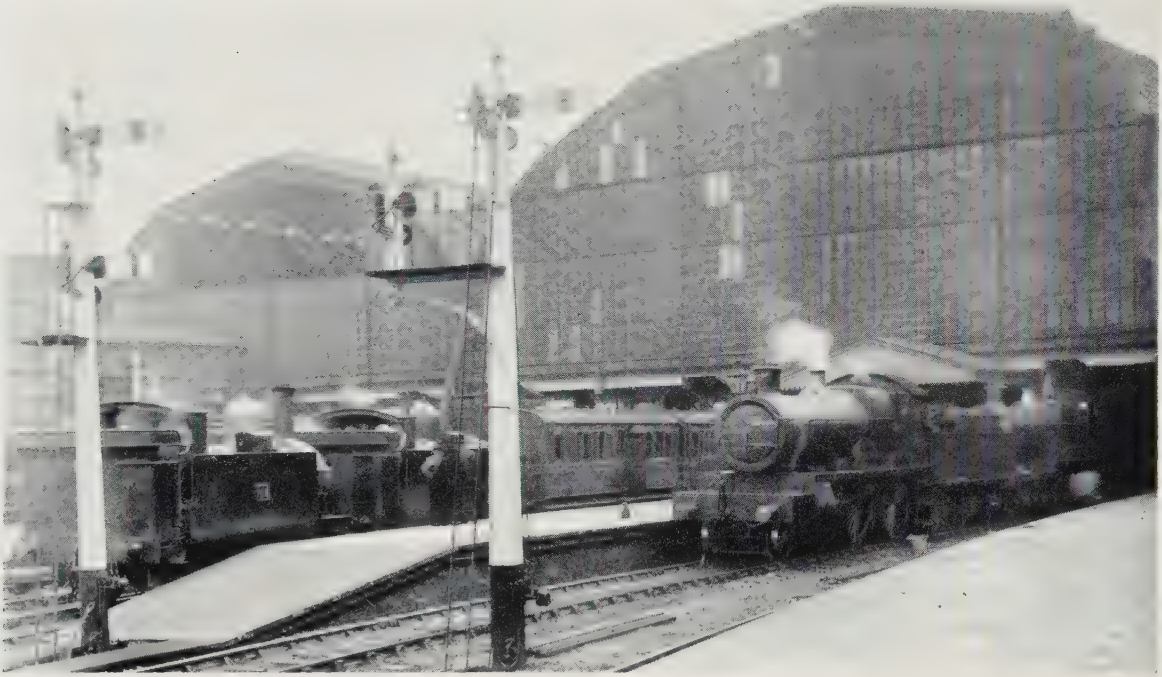


The Great Western produced two 'County' classes inside half a century. This was Churchward's engine. The Churchward 'Counties' did the same sort of work as did the Collett 'Halls' in more recent years. You would find one on anything from a Weymouth express to the unspeakable train that left Oxford for Paddington first thing on Sunday mornings.

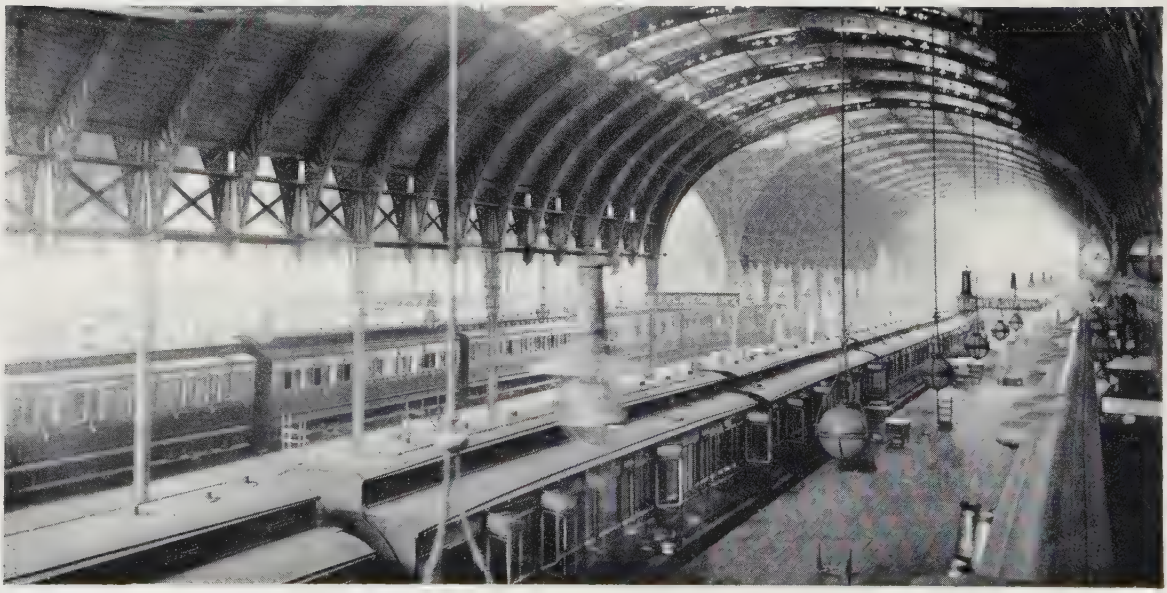
Above: An old Dean 2-4-0 has found her way into a company of Churchward engines on parade.

Below: Knight of the Garter, a 'Star' almost in her final form. The Swindon superheater made a great improvement; Churchward's top feed has not yet appeared.

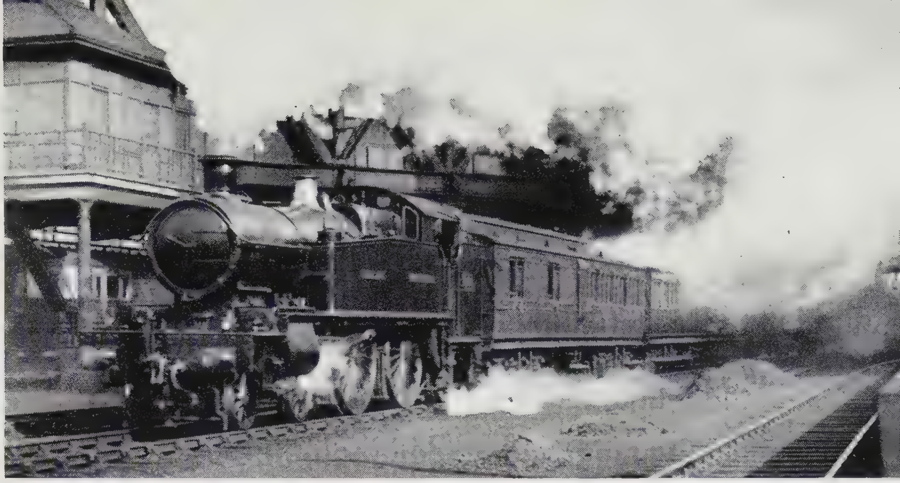


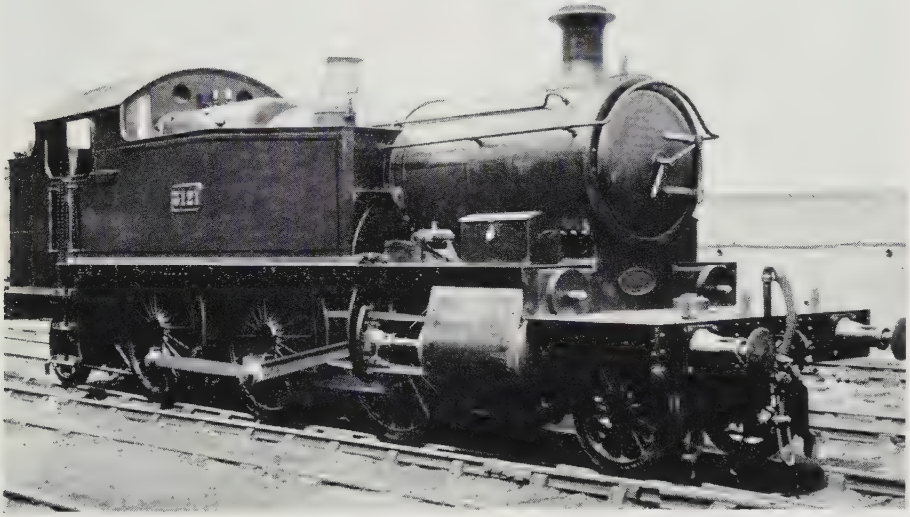


Change and changelessness at Paddington: The little tank engines, the 'County', the 'Bulldog'; Dean's close-coupled four-wheel carriages and his more grandiose clerestories; the semaphores, the globular gas-lamps, the angular electric arc lamps, and the tall milk churns have all gone. Brunel's great roofs and transepts are still there.



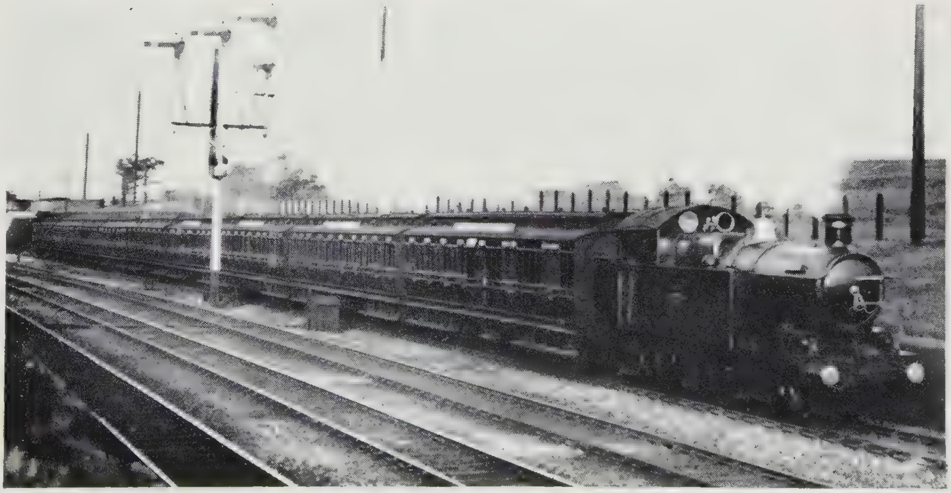
The 'County Tank' was a natural corollary on the Great Western to the four-coupled 'County' with a tender. This one heads a relief express out of Paddington, though their usual task was the haulage of outer suburban trains.

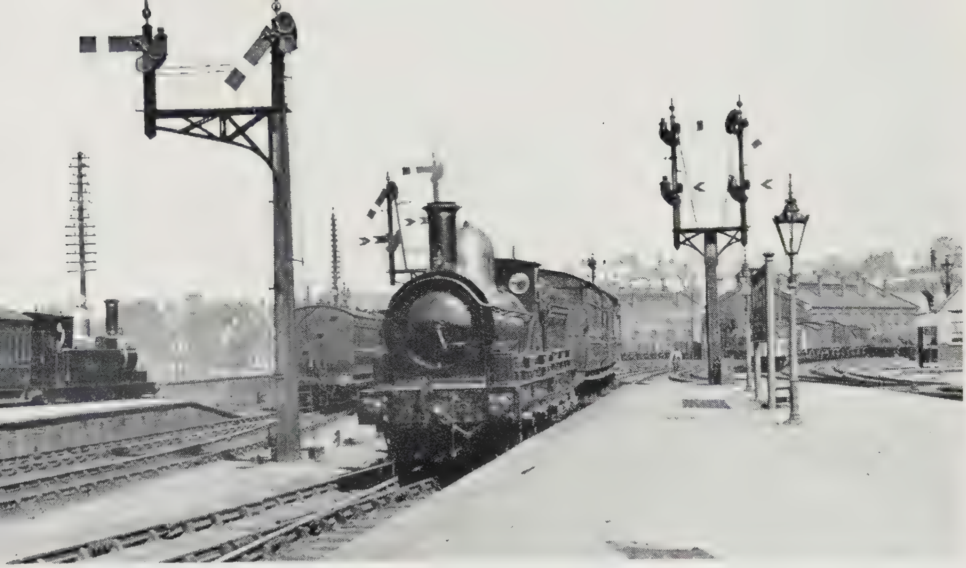




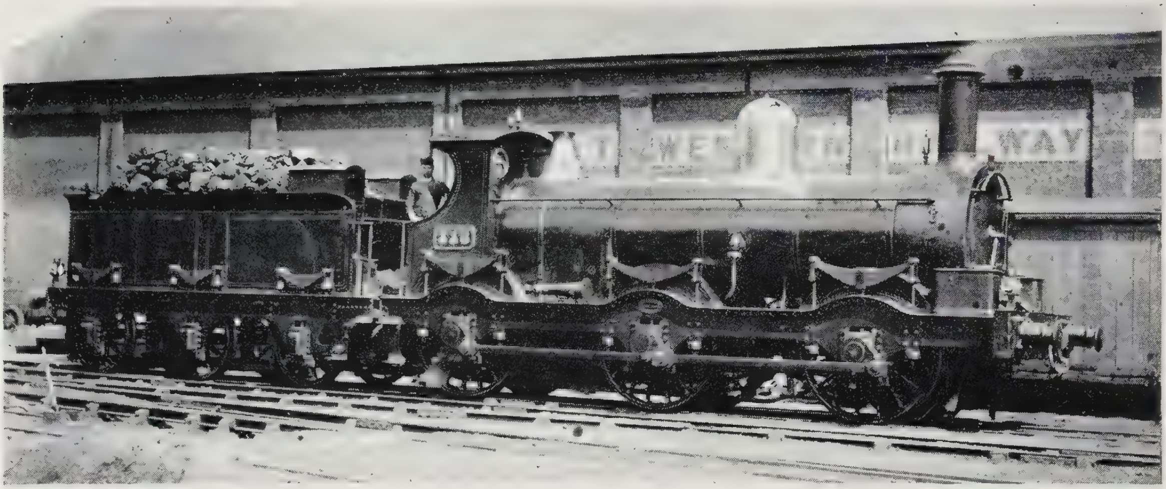
In the early nineteen-hundreds, G. J. Churchward first produced the 2-6-2 tank engine for suburban and local passenger service, and on such their descendants are still to be seen in large numbers, half a century later.

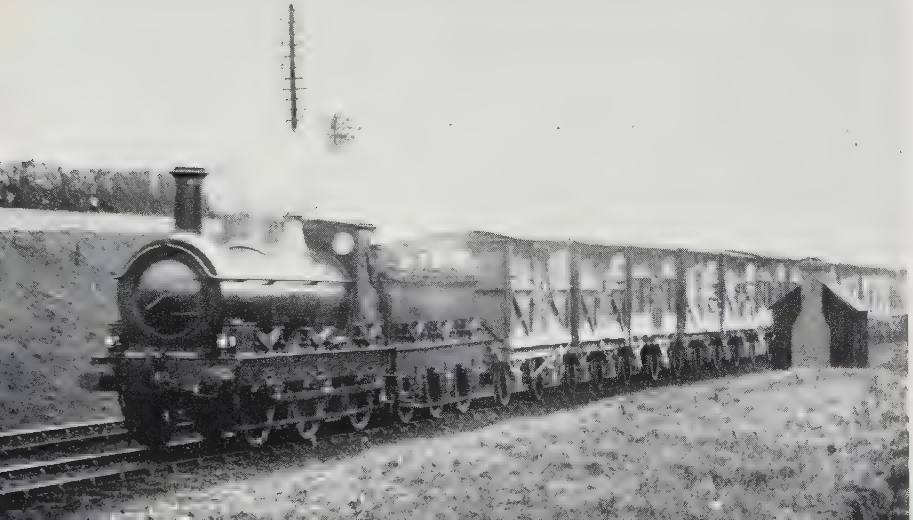
Vanished, however, from what was the Great Western, is the Dean/Churchward 2-4-2 tank engine, the only class Churchward built with both inside cylinders and inside frames. The Birmingham area used to be a good place to see them, though there were plenty about London, and this one, like the 'County Tank' above, has saddled herself with a formidable express train. The carriages are in their red phase, *c.* 1910–20.



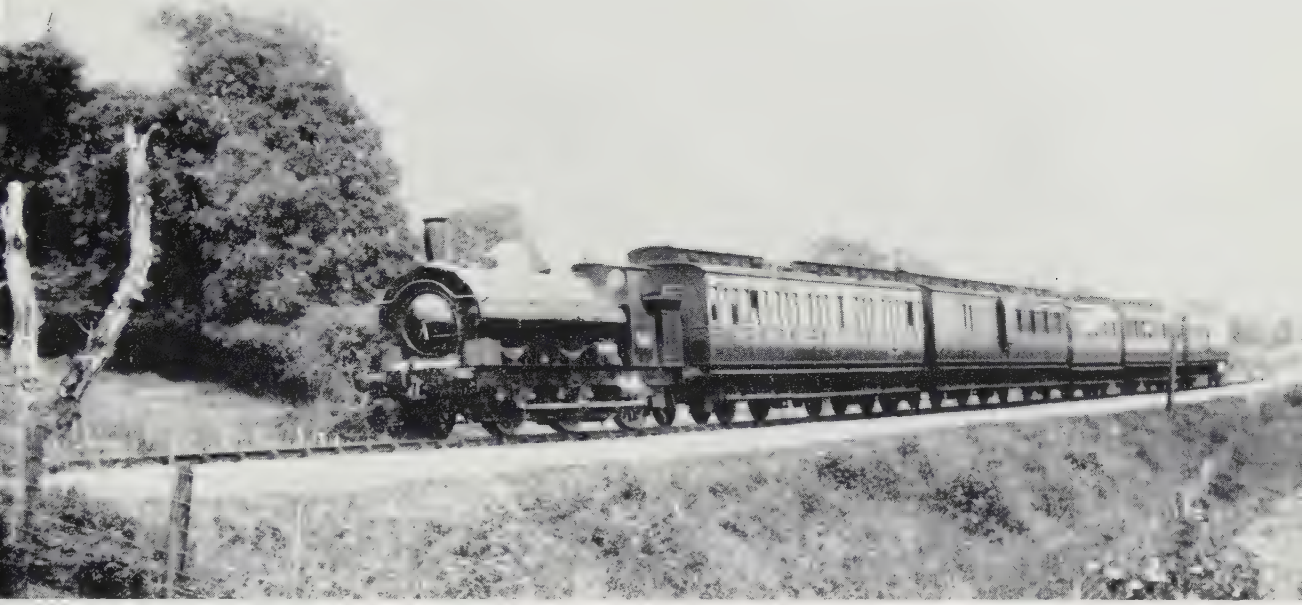


Worcester, Shrub Hill, about fifty years ago. The old Armstrong and Dean engines have gone, and so have the four- and six-wheeled coaches, but the semaphore, in that inimitable shape, remains familiar all over the West.

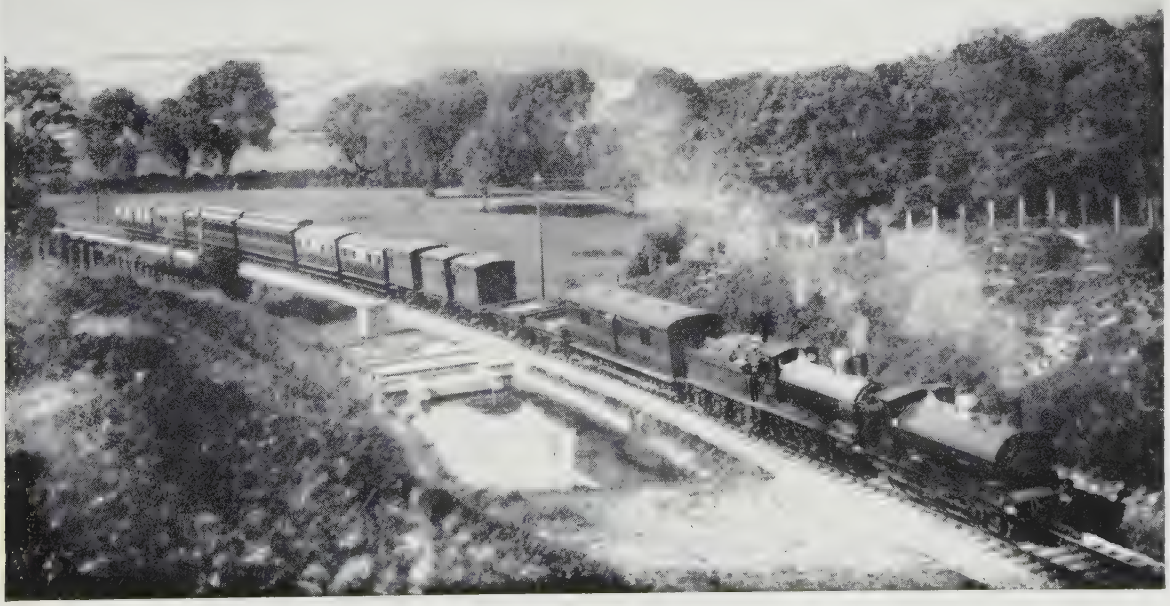


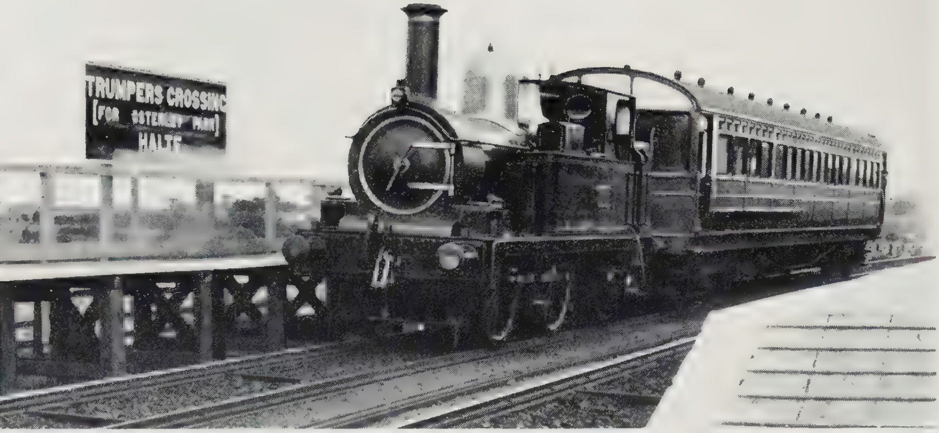


Beyer, Peacock and Company's standard heavy goods engine (*above*), built in the middle of the last century, found its way to all sorts of places. The Midland had it, so did the South Western, so did the Dutch State, so did the Egyptians, and so did the Great Western. An old Armstrong goods engine (*left*) brings down a long line of much-whitewashed cattle-empties.



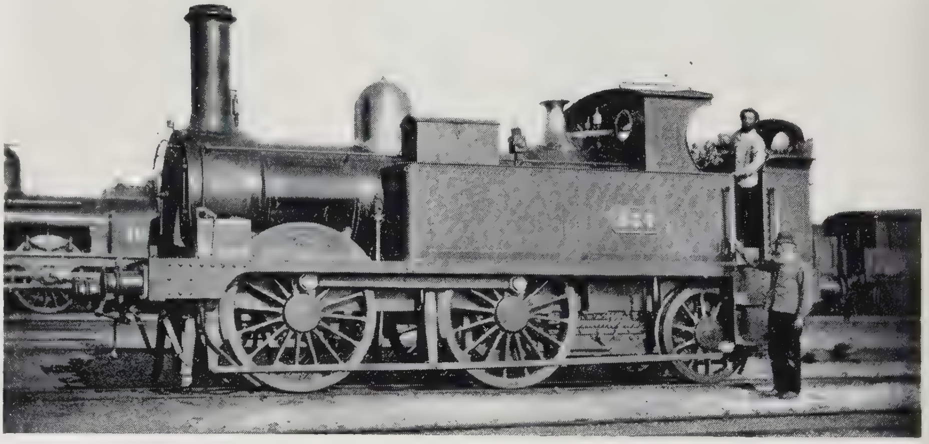
There was nothing else quite like a Great Western branch or local train. These are in Pembroke during the first decade of this century. This is how we knew them. A brass-domed saddle-tank engine was bound to turn up, perhaps rather sooner than later; the carriages would be of assorted shapes and sizes, and often of different colours. Two red clerestory bogies have got into the very mixed-looking troop train in the *lower* view, as well as three assorted horseboxes, two carriage trucks, and a London & South Western bogie van.

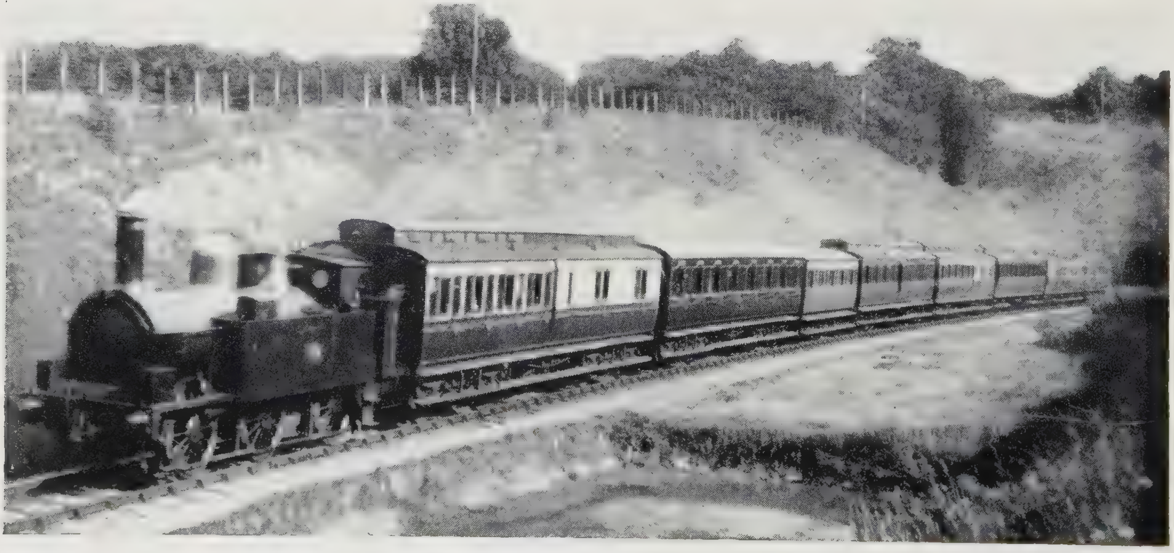




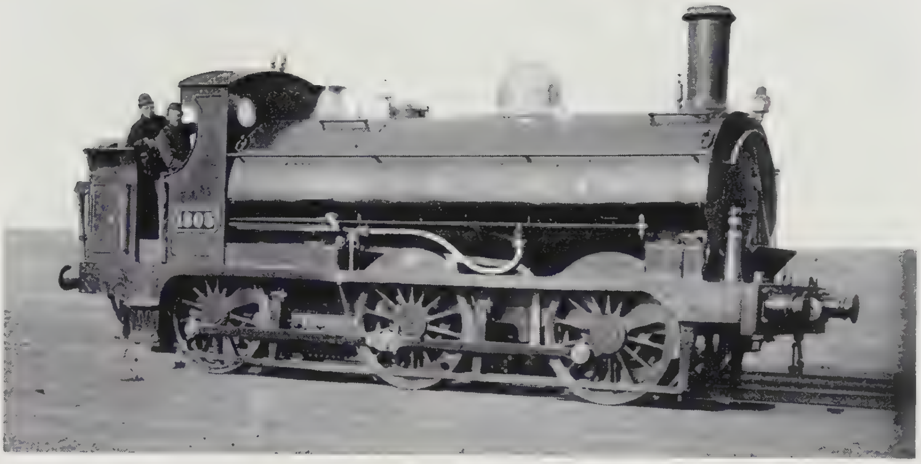
It was unthinkable that the London & South Western should have a monopoly of the Hounslow neighbourhood. So the Great Western had its Brentford branch, worked sometimes by a rail-motor and sometimes by a pull-and-push, here seen favouring Trumper's Crossing (for Osterley Park) Halte.

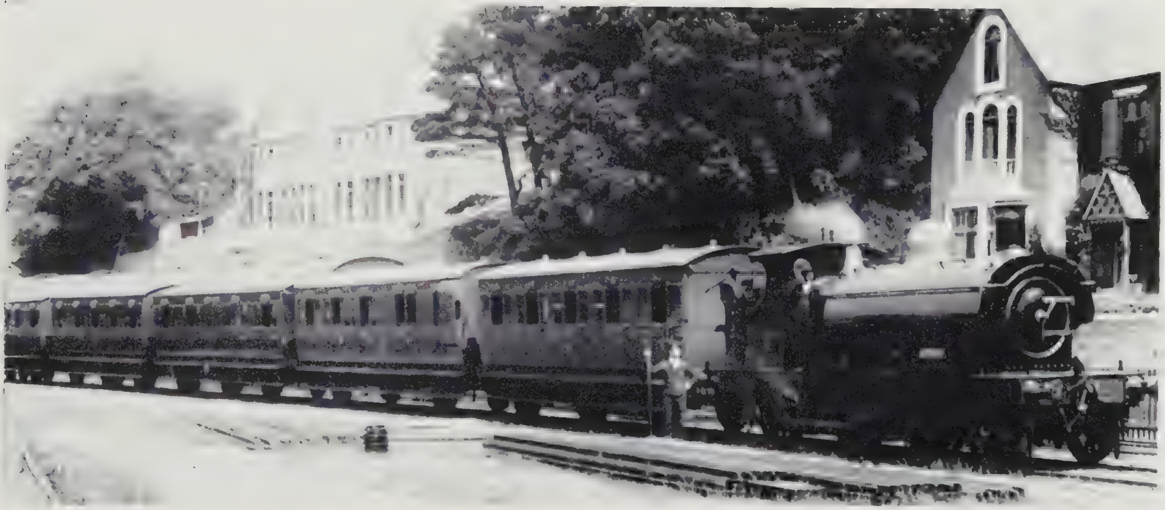
On the Great Western branches there were more 0-4-2 tank engines than even the London, Brighton & South Coast possessed; some of them, like No. 834 (*right*), of astounding antiquity. The eight-coach branch train (*below*), emerging from Golden Hill Tunnel on the Pembroke and Tenby line, has been more properly entrusted to a six-coupled engine, though, once clear of the main lines, there was doubtless plenty of time.



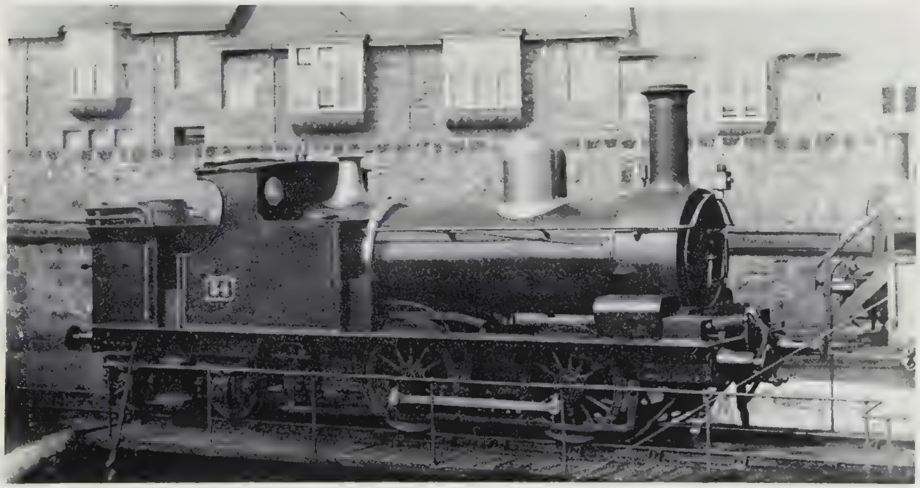


Characteristic of Great Western standard gauge practice in the 'eighties was the 645 class saddle tank. No. 1805 was built in 1881.

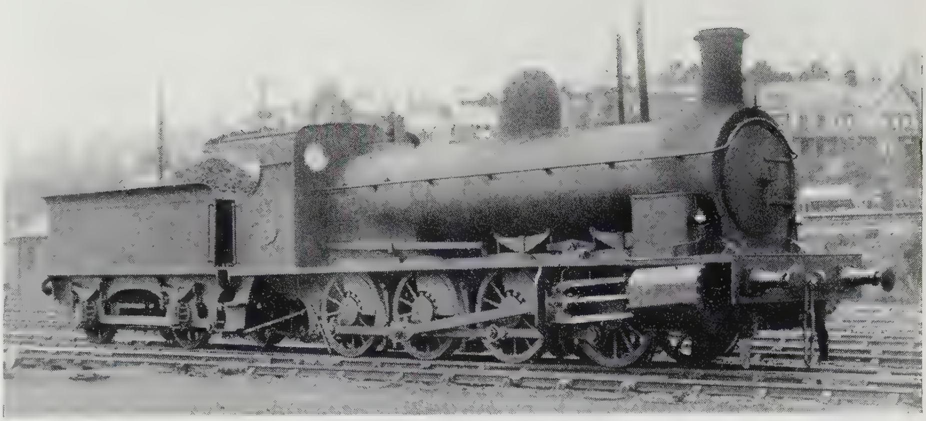


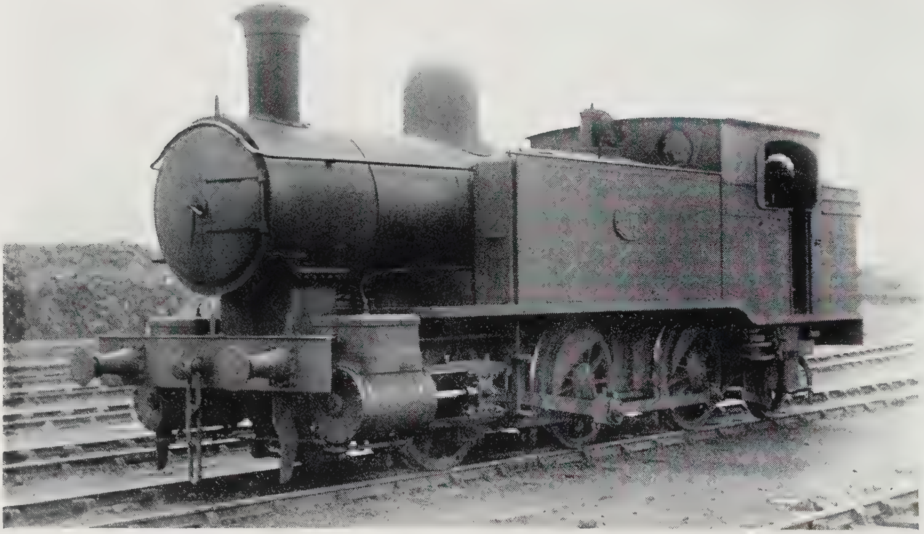


Four-coupled oddities. On the Looe branch train (*above*) is G.W.R. 4-4-0 saddle tank engine No. 13, rebuilt from a 2-4-2 of 1886 in 1897. The whole train was on loan to the Liskeard & Looe Railway. The little 0-4-4 tank, No. 34 (*right*), was one of two, built in 1890 as 0-4-2 and rebuilt in 1895. They ran on the Helston and St. Ives branches.



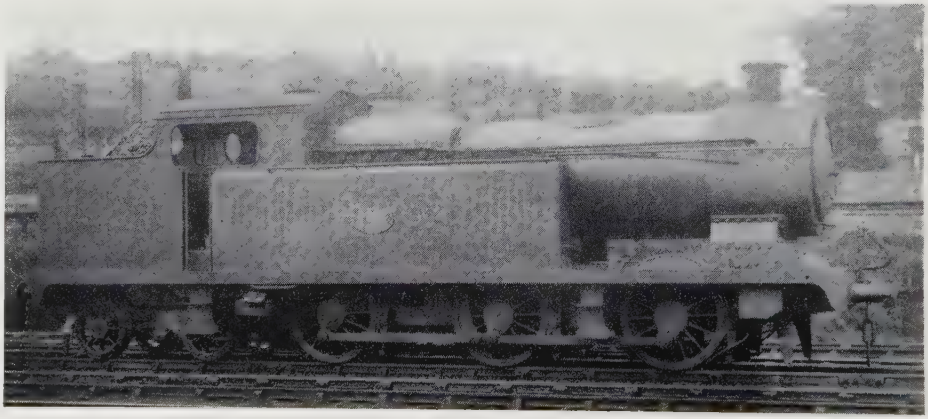
When the Swedish & Norwegian Railway fell on evil days, as it quickly did, some Sharp, Stewart 0-8-0 mineral engines were at large, and this was one acquired by the Barry Railway. They were originally turned out in 1886 and two reached South Wales in 1889. Two more went straight there in 1897.

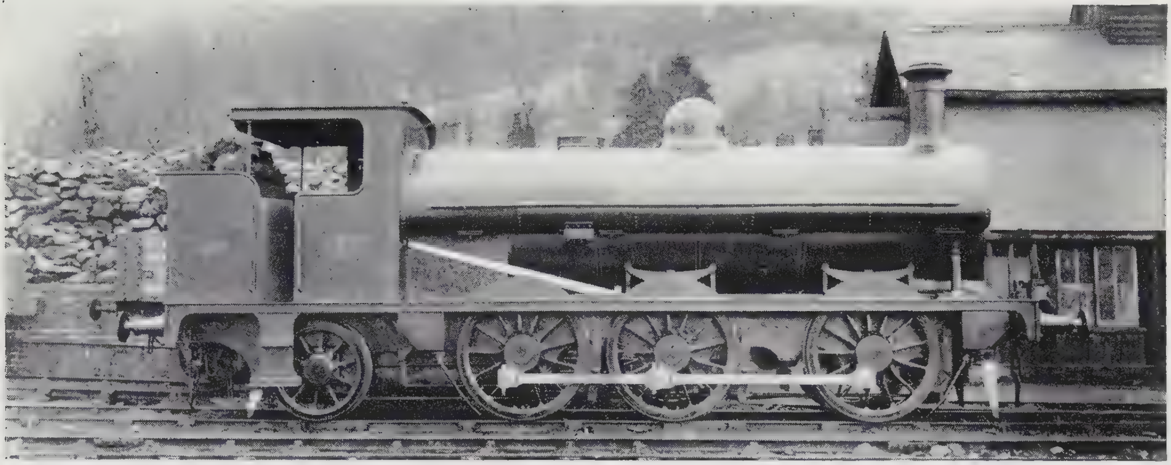




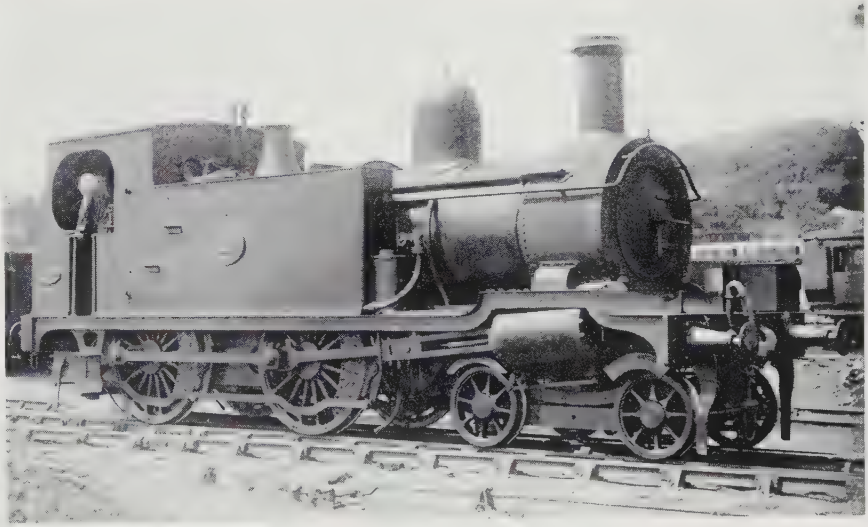
From the Cooke Locomotive Works of Paterson, New Jersey, the Barry Railway had five 0-6-2 tank engines in 1899, and later the design was copied at home and increased. This was one of the British-made American-type engines.

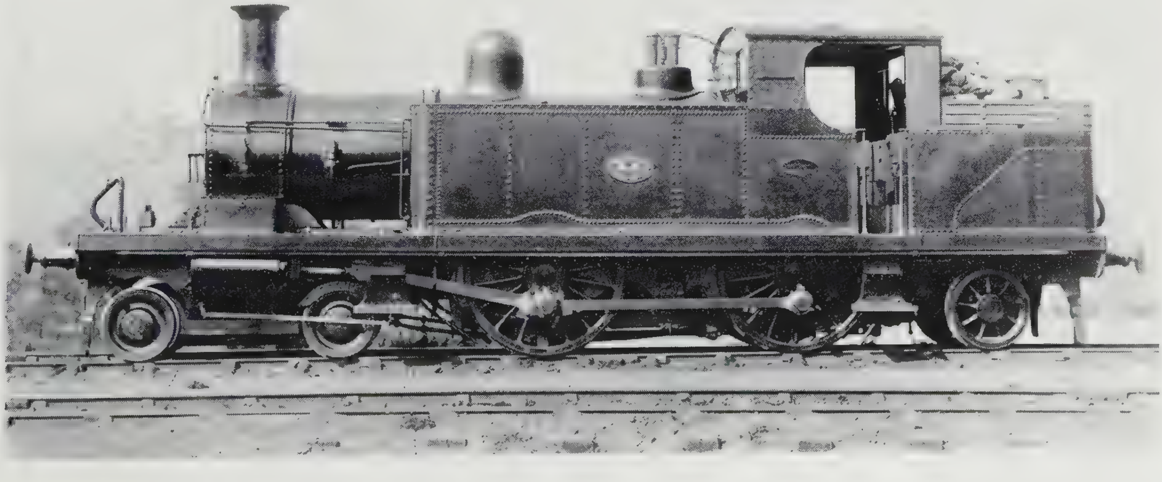
The Barry Railway's Class 'L' provided its giants. There were ten of them, and they came out in 1914. Their short life – they suffered from the dictates of Great Western standardisation – was devoted to coal southbound and empties northbound.

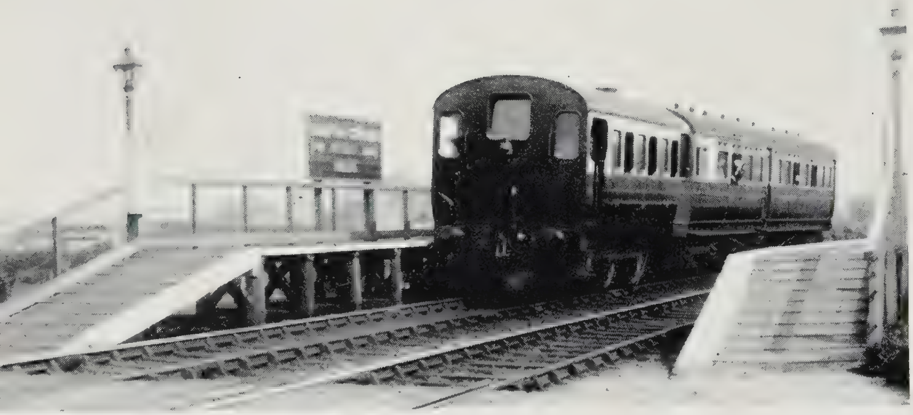




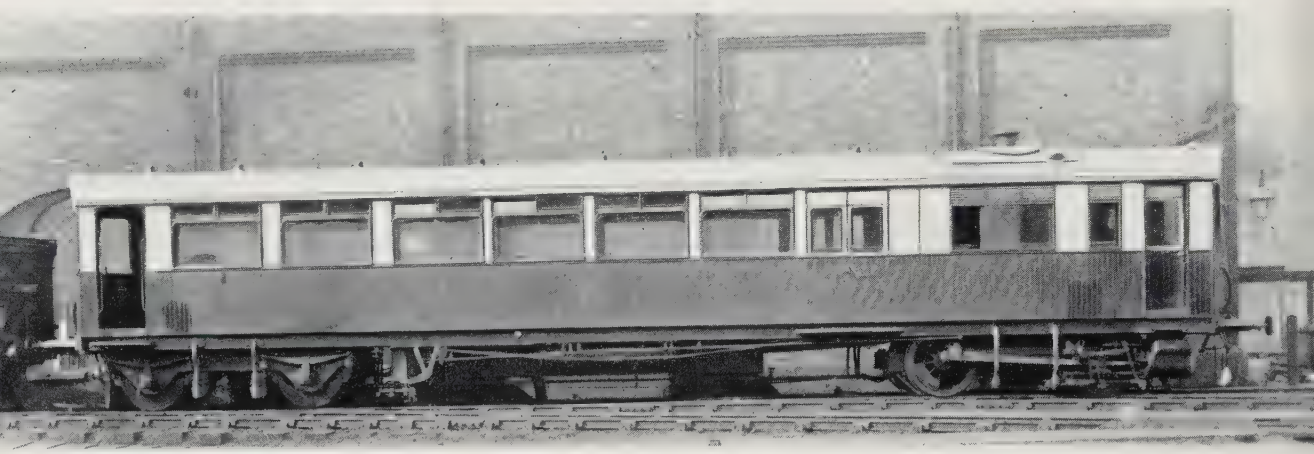
Variety in the Valleys: Brecon & Merthyr No. 23 (*above*), built by Vulcan Foundry in 1894, was a late example of the long-boiler saddle-tank engine much beloved in South Wales. Neath & Brecon No. 5 (*right*) might have been described as the company's 'express engine', though there was not much work of that kind for her to do. Brecon & Merthyr No. 44 (*below*) was an Adams tank engine which had begun her career (without the trailing radial axle) on the London & South Western Railway in 1879, having been built by Beyer, Peacock & Company.

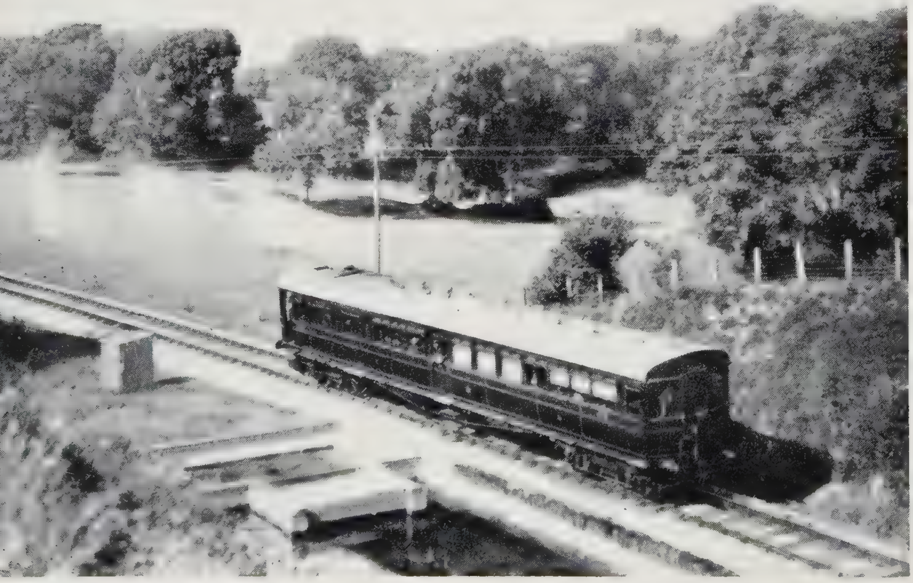






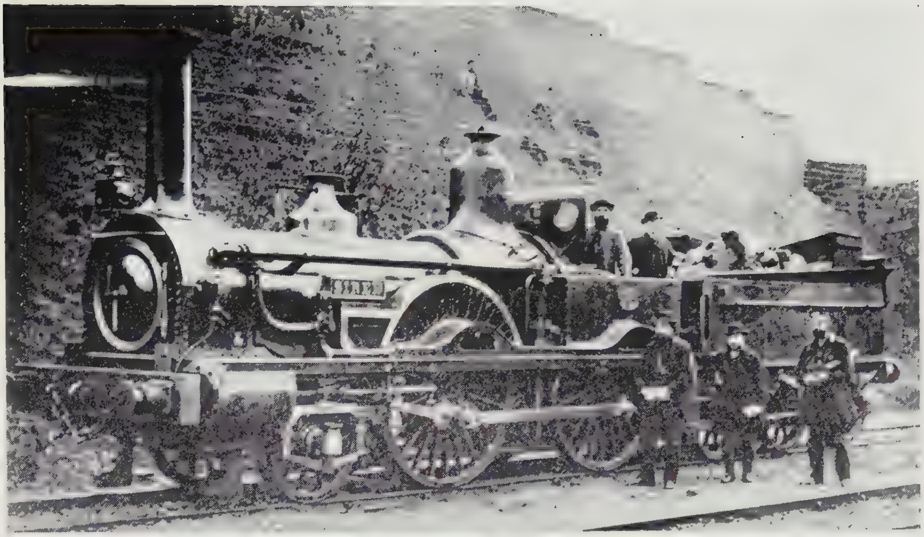
Another view of Trumper's Crossing Halt, with one of the Great Western's standard tank engines dressed up in an all-over cab, painted chocolate and cream to match the trailer. The maximum load was four trailers with the engine in the middle. Was it a rail-motor, or a giant steam tram? The Dutch would have a word for it: *Tramtrein!*

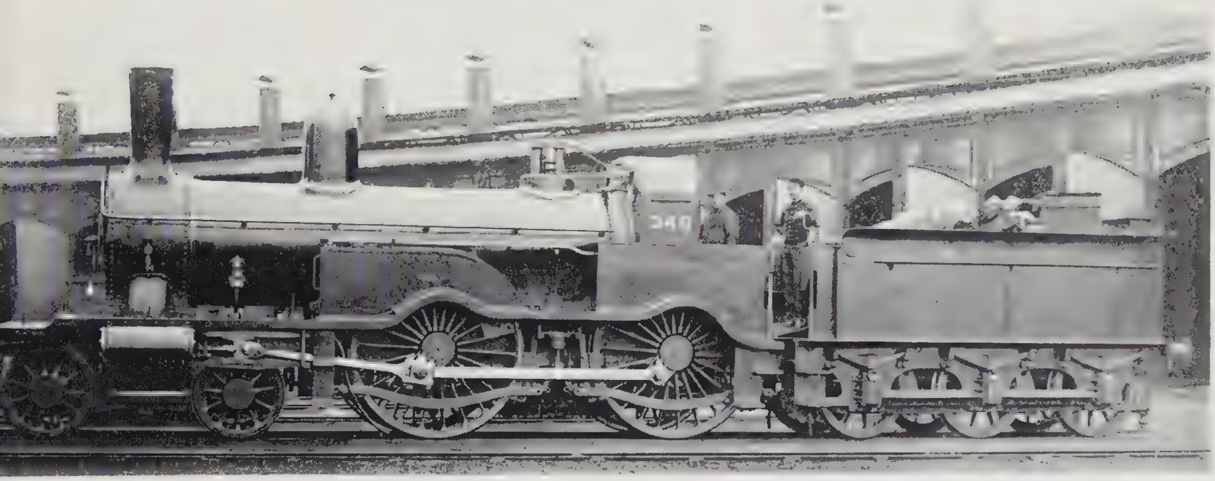




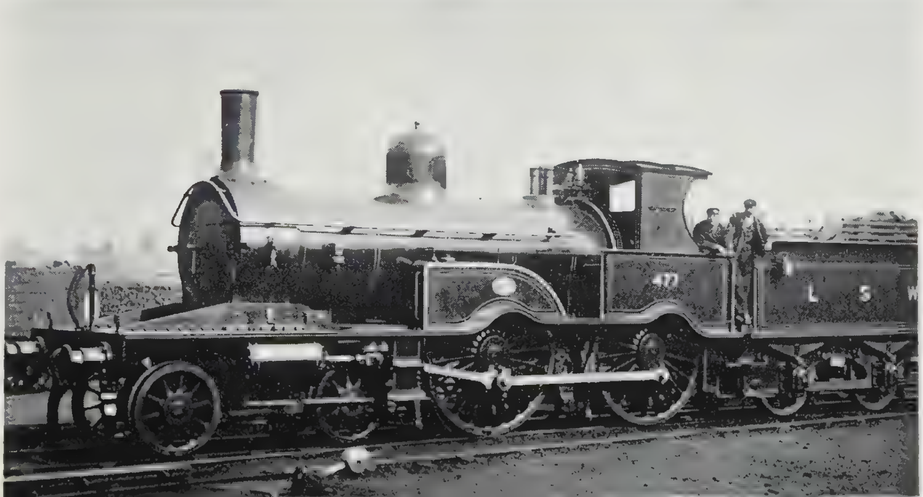
Rail-motor proper – one of G. J. Churchward's earlier examples (*above*) with a flat-sided body and Dean's four-point-suspension bogies. The other (*left*), in the red-coachwork, white-roof phase, is the shorter of two forms ultimately standardised,, with a clipper body. All had Walschaerts gear and vertical boilers. They were among the most successful of the direct-drive steam rail-motors and ran for many years.

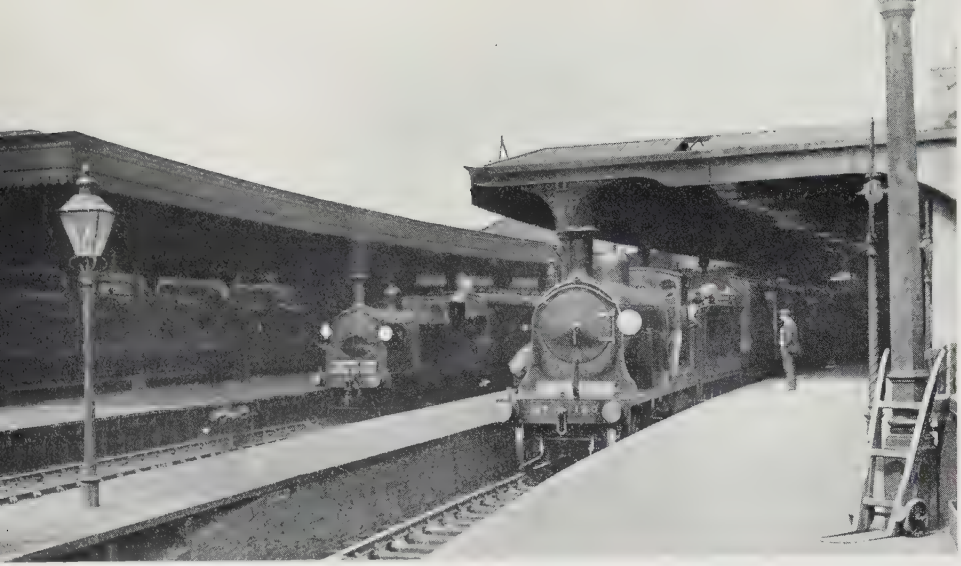
Beatties: Joseph Beattie's 2-4-0 locomotive with minor variations, was the standard London & South Western express engine from 1859 to 1875, and did very well in its day. *Siren* was built in 1866. His son William George Beattie's 'Jumbos' (*below*) usually did not. No. 348 was the first of twenty, built by Sharp, Stewart in 1876. The lower engine has been modified, though not rebuilt, by William Adams.



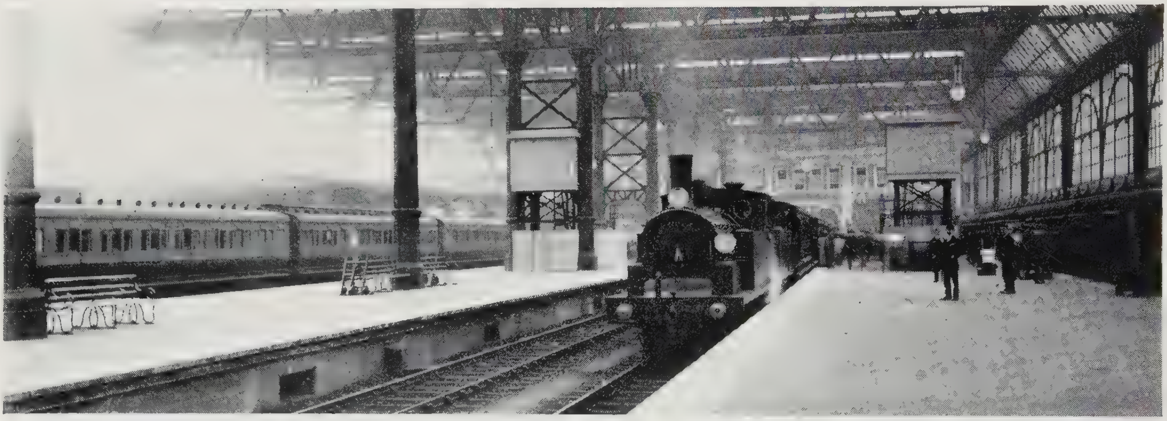


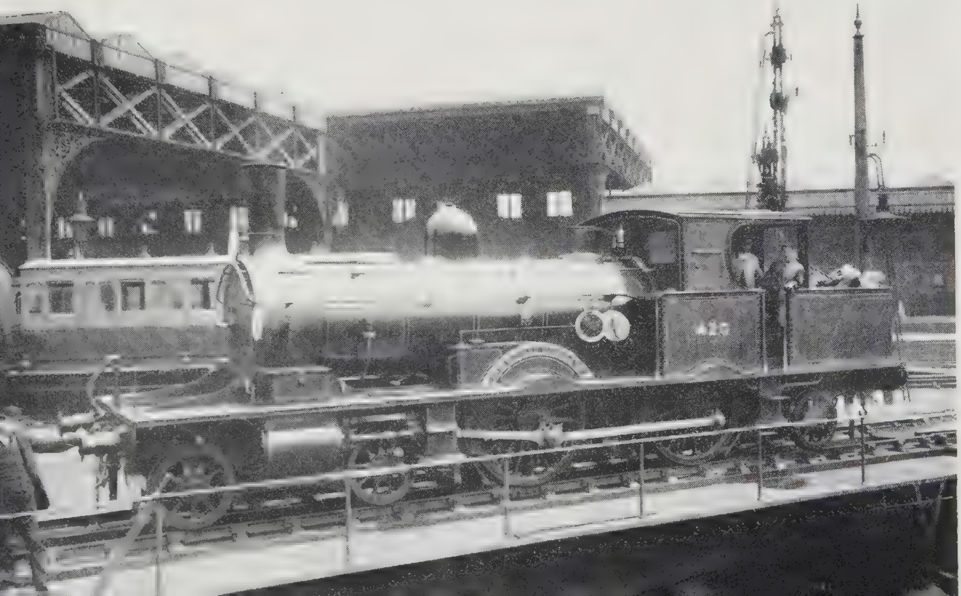
If the Beattie bogie engines on the L.S.W.R. were a disappointment, those of William Adams were an unqualified success. No. 477 was one of the second series with 6 ft. 7 in. driving wheels; they ran for about forty years, from the middle 'eighties to the nineteen twenties. This one was built by Robert Stephenson & Company.



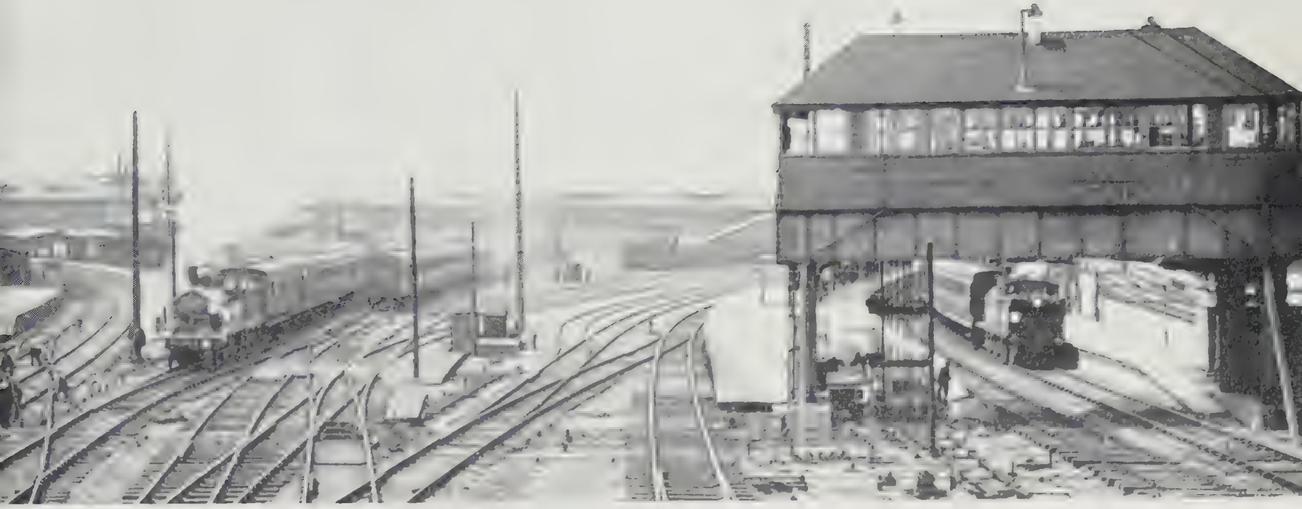


At top and bottom are the South Western's old, unregenerate Waterloo Station, the largest, and in its day the worst, of the major London termini. The Drummond engines (*left*) are in the main line portion and the Adams radial tank engine (*bottom*) is on the 'Windsor Station' turntable, with a choice Beattie coach beyond.

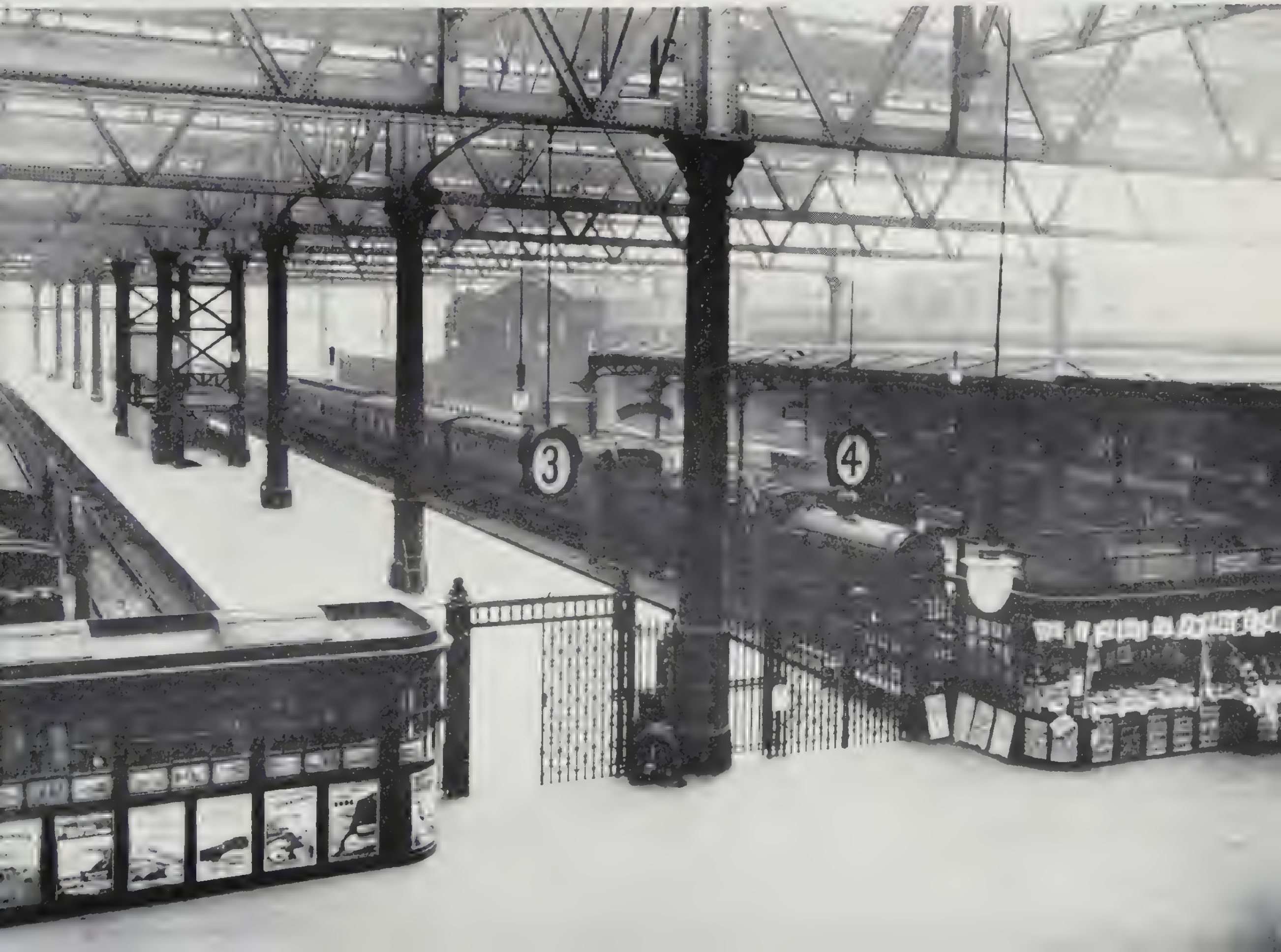


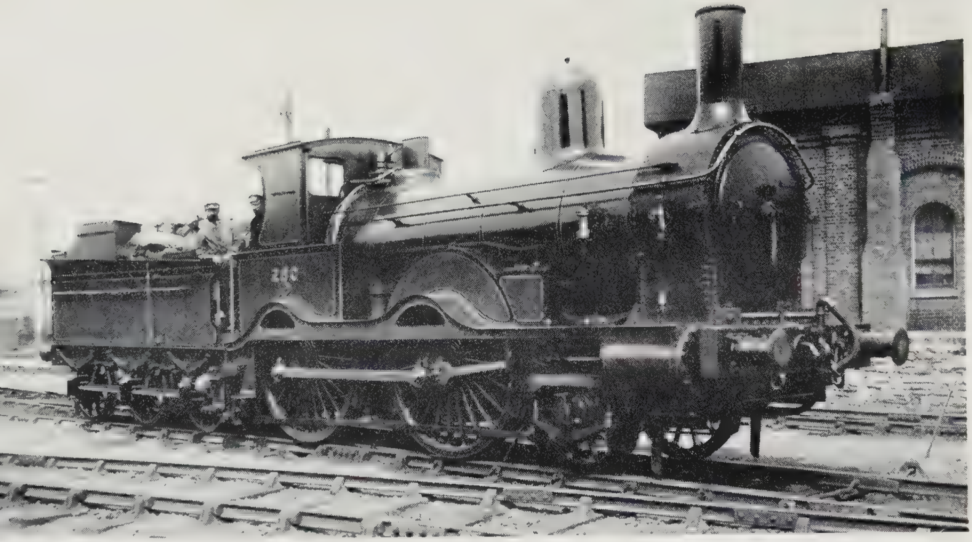


Above is Waterloo about 1912, with the great roof of the present station beginning from the south to engulf the old structures. The Epsom and Leatherhead line train is improbably double-headed by Adams and Drummond 0-4-4 tank engines; on the left is some of Surrey Warner's corridor stock with a 1906 diner.

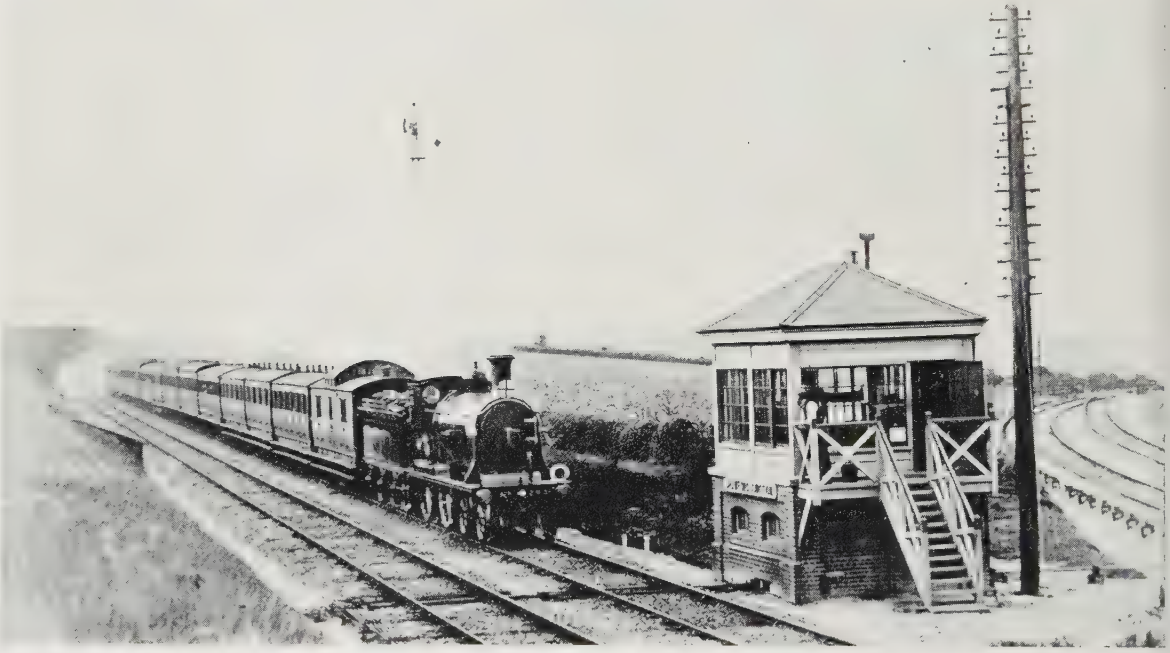


London & South Western, before 1914. *Above* is the South Western side of Clapham Junction, with main lines to the left and Windsor lines to the right, and the carriage sidings in between as they are now. *Below* is another view of Waterloo under transformation. An up express with a Drummond 'T9' is at Platform 5 and a suburban train at Platform 2. The new roof casts a shadow of doom over the old buildings. The bookstall placards proclaim the Crippen trial.

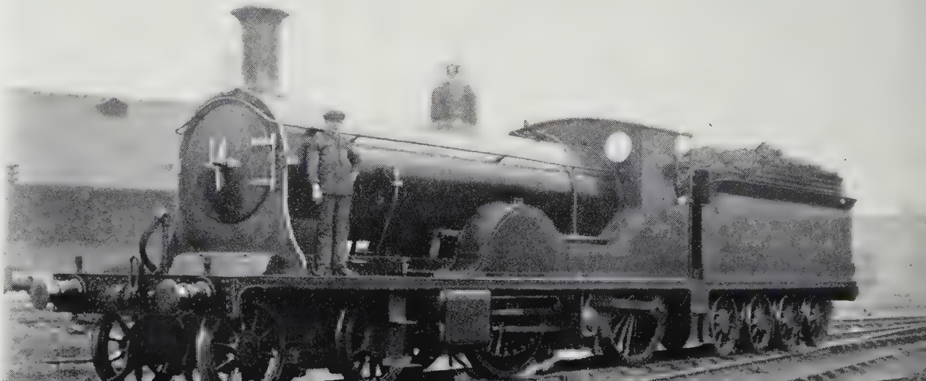




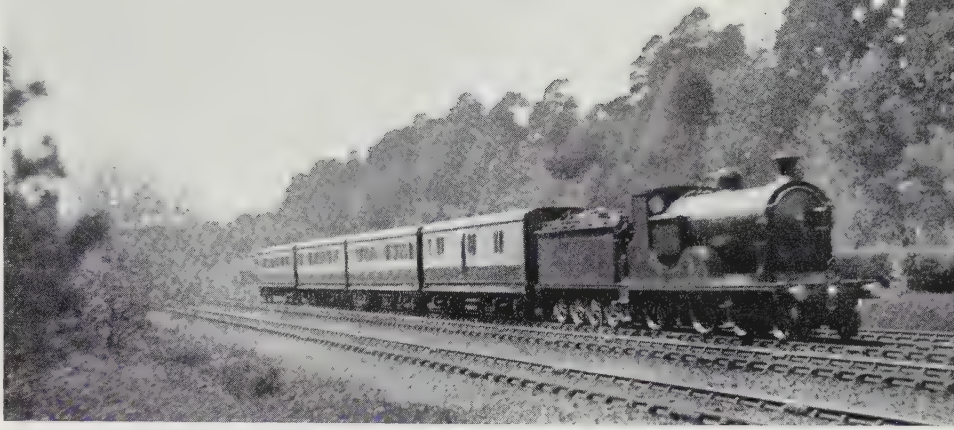
Last phase of Joseph Beattie's express engines. No. 280 has a new Adams boiler and a rather more respectable cab than her designer had bestowed upon her. The tender retains the shunter's rail and the vertical rail with a water-gauge inside. Behind the step is the steam brake cylinder.

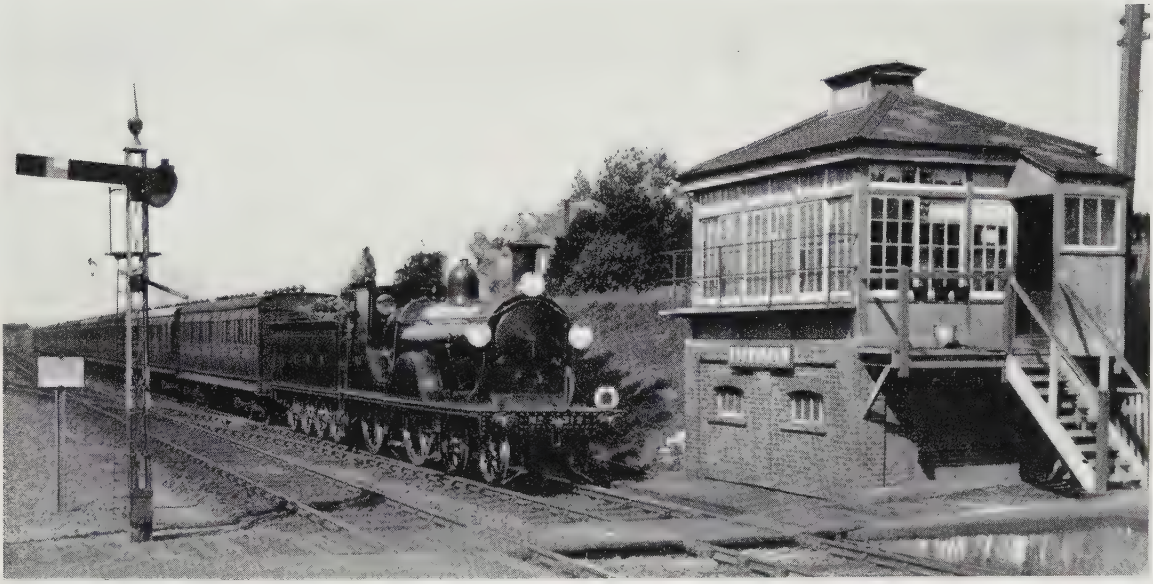


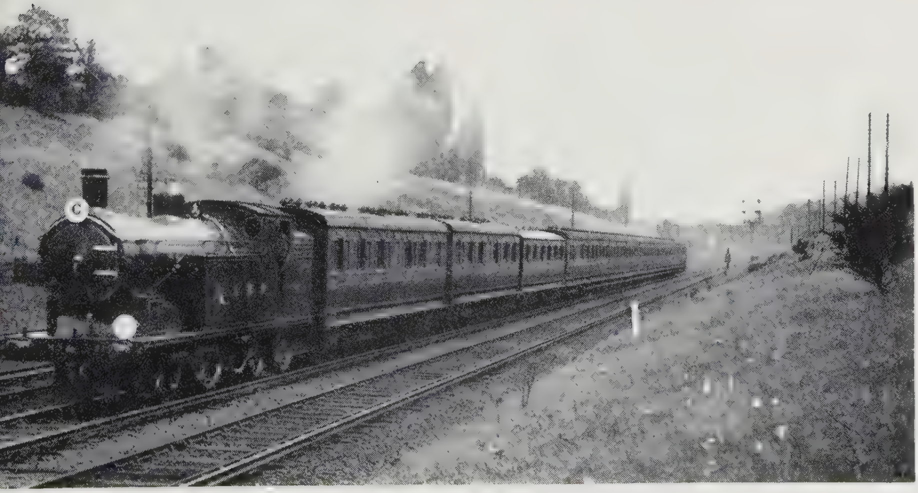
Earlier Drummond types on the South Western. A 'T9' 4-4-0 comes up to Shawford Junction (*above*) with a special composed of rather miscellaneous late-Victorian rolling stock. Most of the six-wheelers had gone by 1914. No. 373 (*right*) was the last of the four-cylinder simple 'double singles' to be built. The arrangement of outside cylinders and Joy gear was reminiscent of Webb on the L.N.W.R.



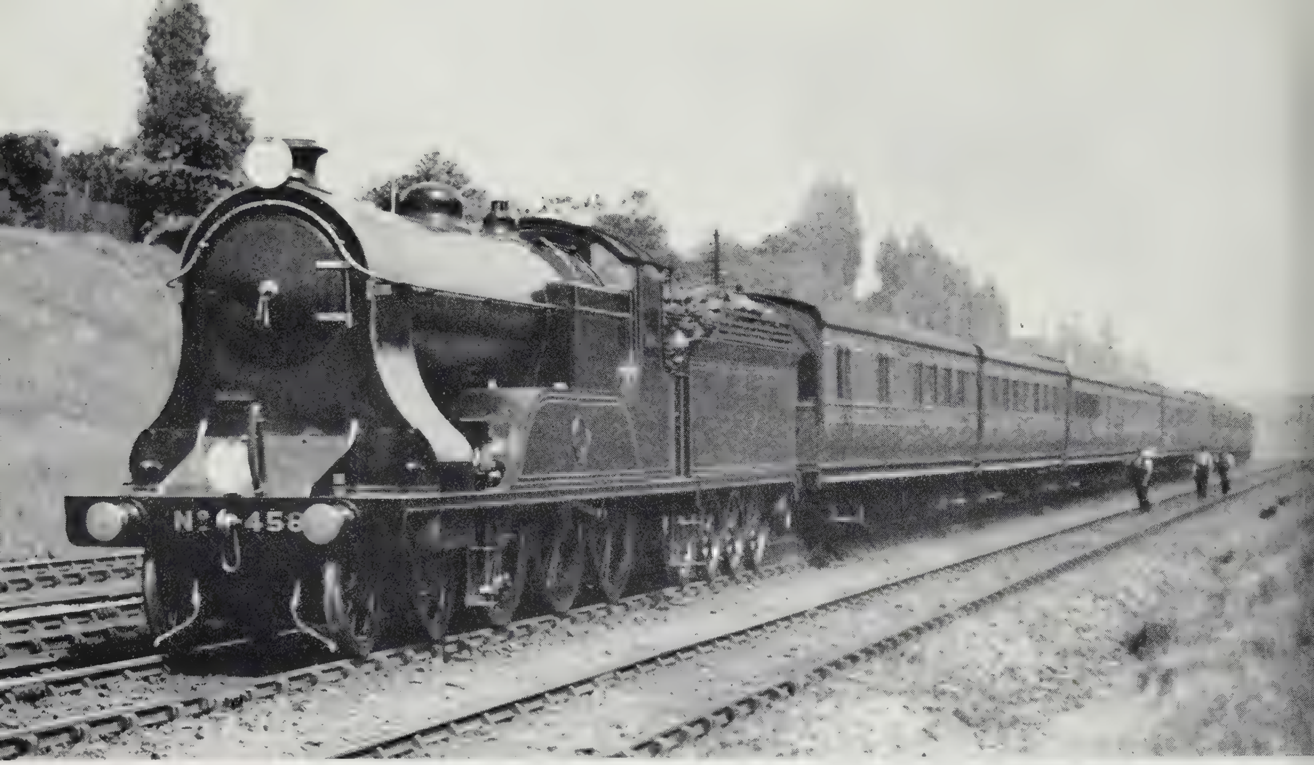
Royal journeys on the South Western were usually to and from either Portsmouth or Gosport. A Drummond 'L12' heads this train (*right*); leading is a kitchen brake, and next to it the carriage built as a double saloon in 1885 and promoted Royal Saloon in 1897. No. 312, one of the 1900 series of Class 'T9', (*below*) brings a Bournemouth line special through New Milton.



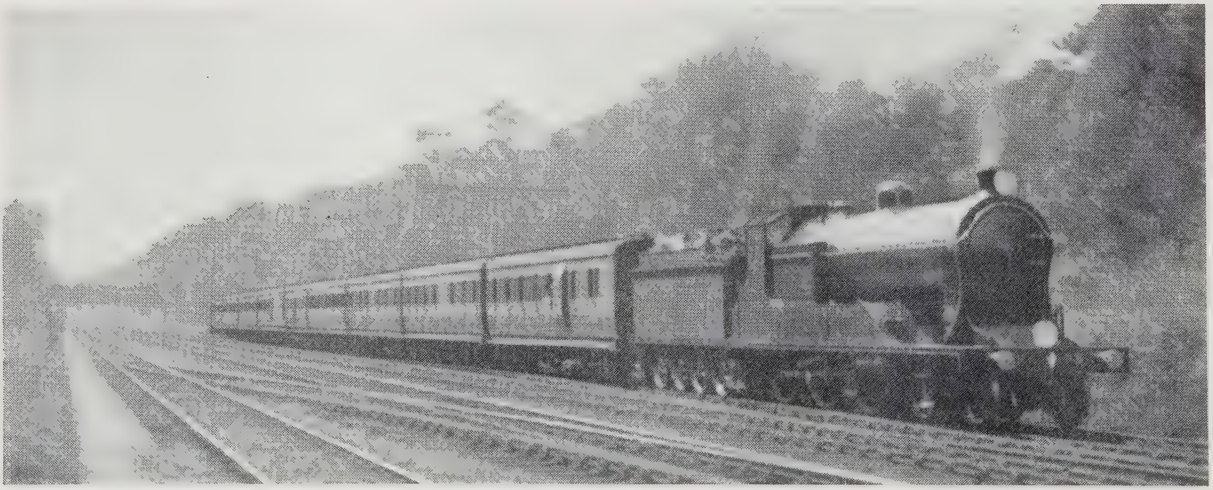


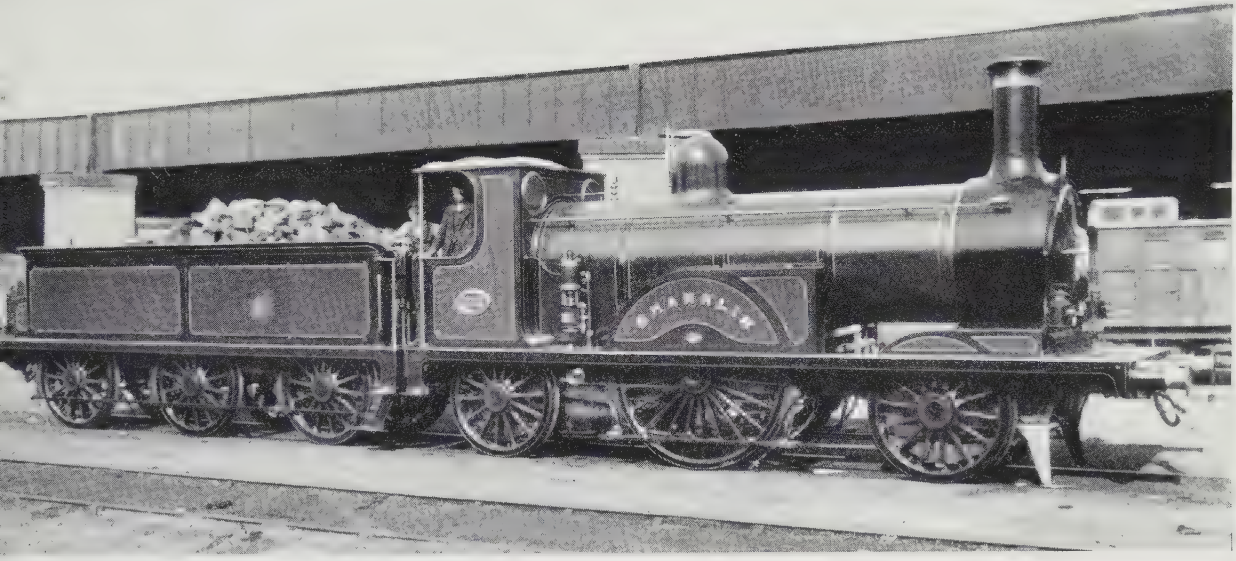


Only one of Drummond's Class 'M7' tank engines on the L.S.W.R. was rebuilt with a superheater by R. W. Urie – No. 126. The rebuilding came late in the day for suburban traffic; it also made the engine awkwardly head-heavy. Under the Southern, the engine was cannibalised and the boiler went to a goods.



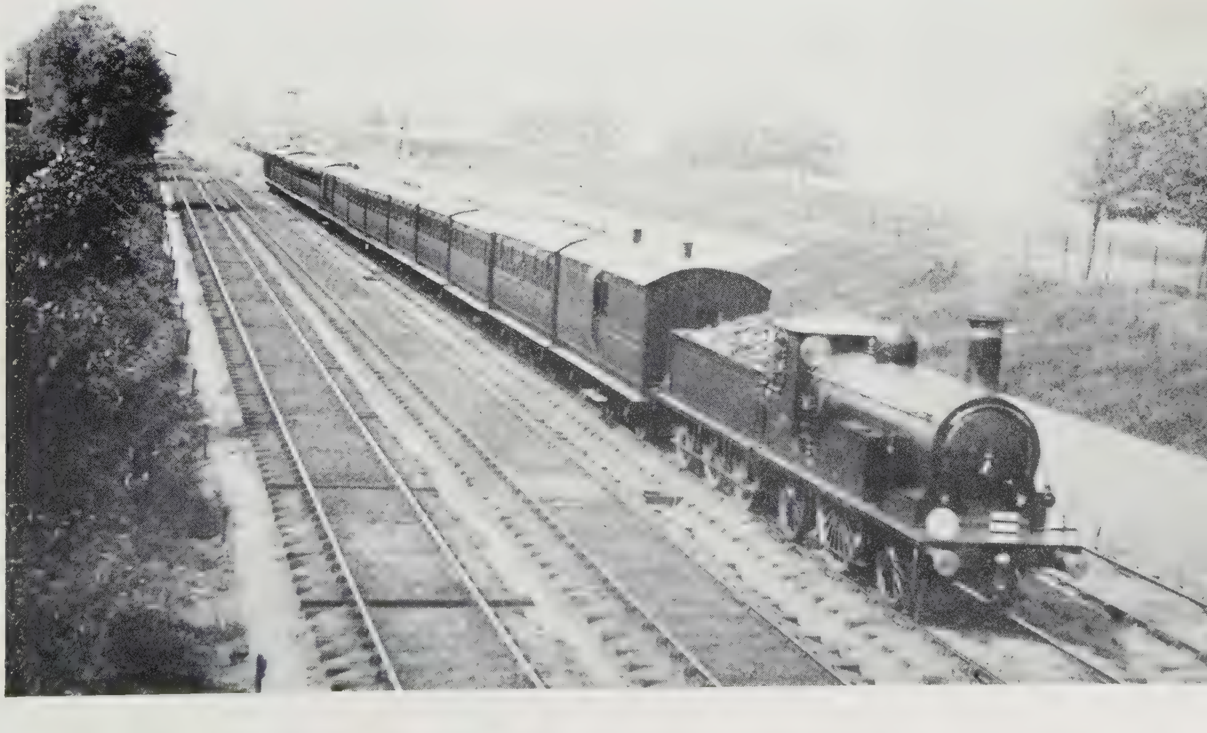
A Drummond 'Paddlebox' four-cylinder 6 ft. 7 in. 4-6-0 heads the eleven o'clock down West of England express (*above*); the year is about 1914, with the class in its prime. The first three coaches are for Padstow, the next three for Bude, and the diner and the rest for Exeter, which was reached with one stop, at Salisbury. One of the earlier Drummond 4-6-0 types, Class 'G14' 4-6-0 No. 455, passes Oatlands box (*below*) with the 10.33 a.m. Salisbury–Waterloo in 1912.

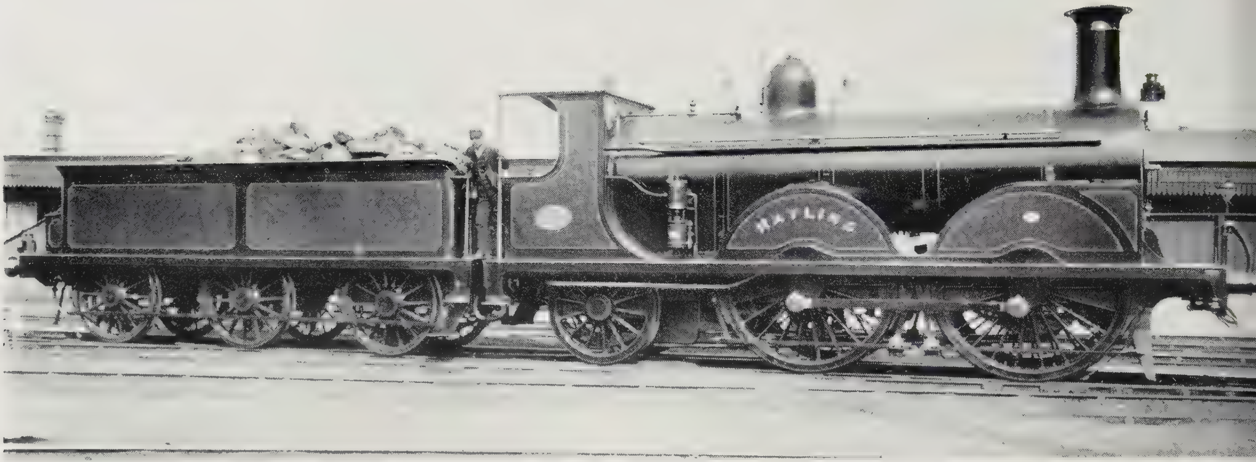




Only William Stroudley of the London, Brighton & South Coast could have produced *Shanklin* (*above*), one of the 'G' class single express engines which for years dealt with the best trains over the company's Portsmouth road. They were small engines with an extraordinary quality in getting away with what might be a big Pullman train on the main line, for 'Pompey' was by no means their only terminus. One of the same class heads a mixed lot of high Stroudley content south of Clapham Junction (*below*).

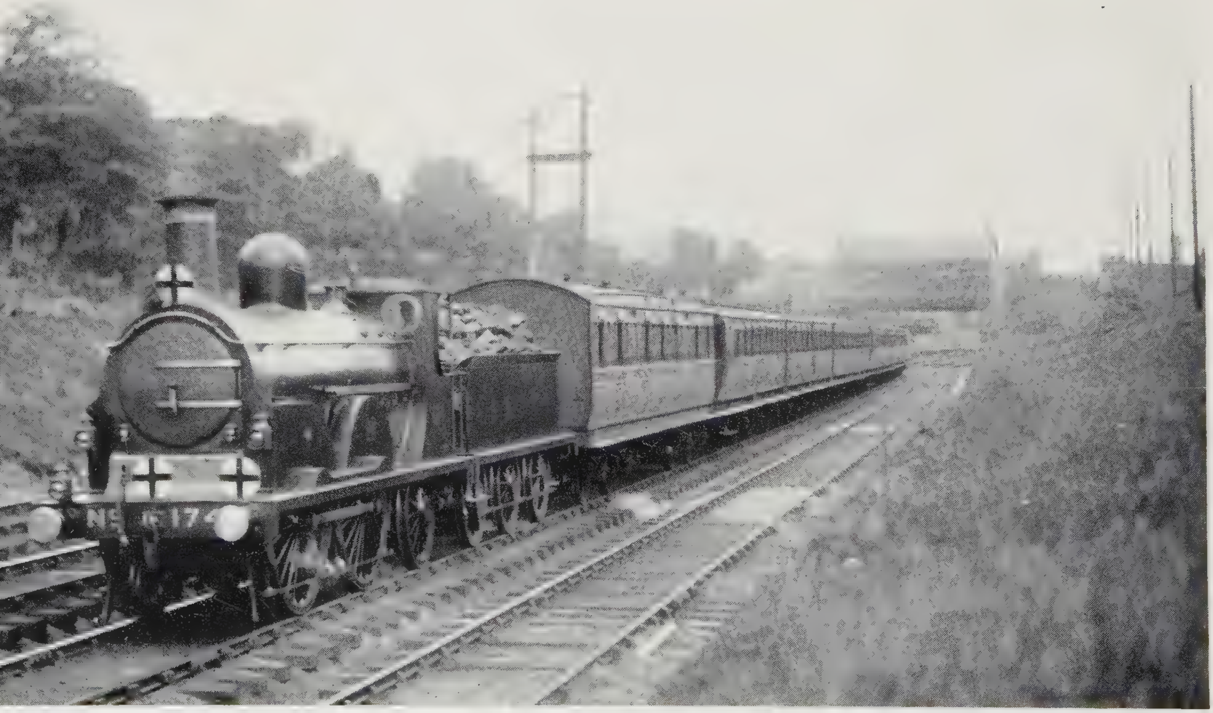
[*Below: H. Gordon Tidey*

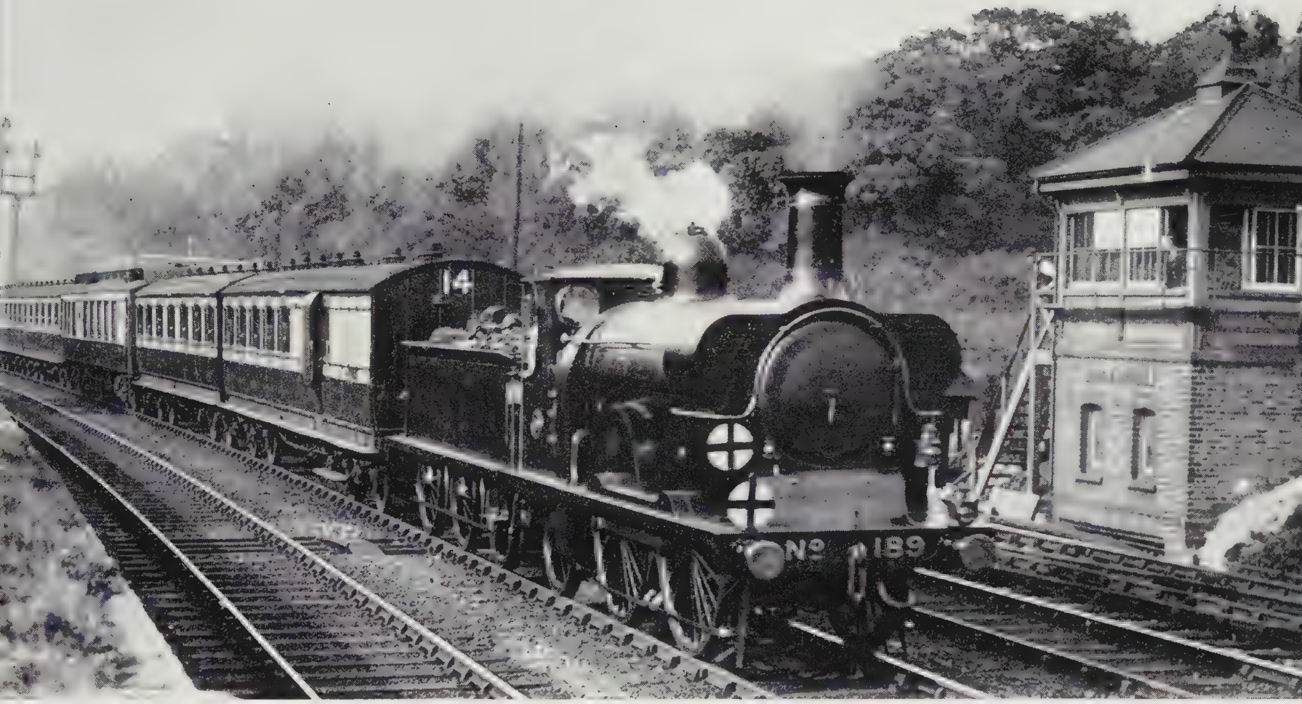




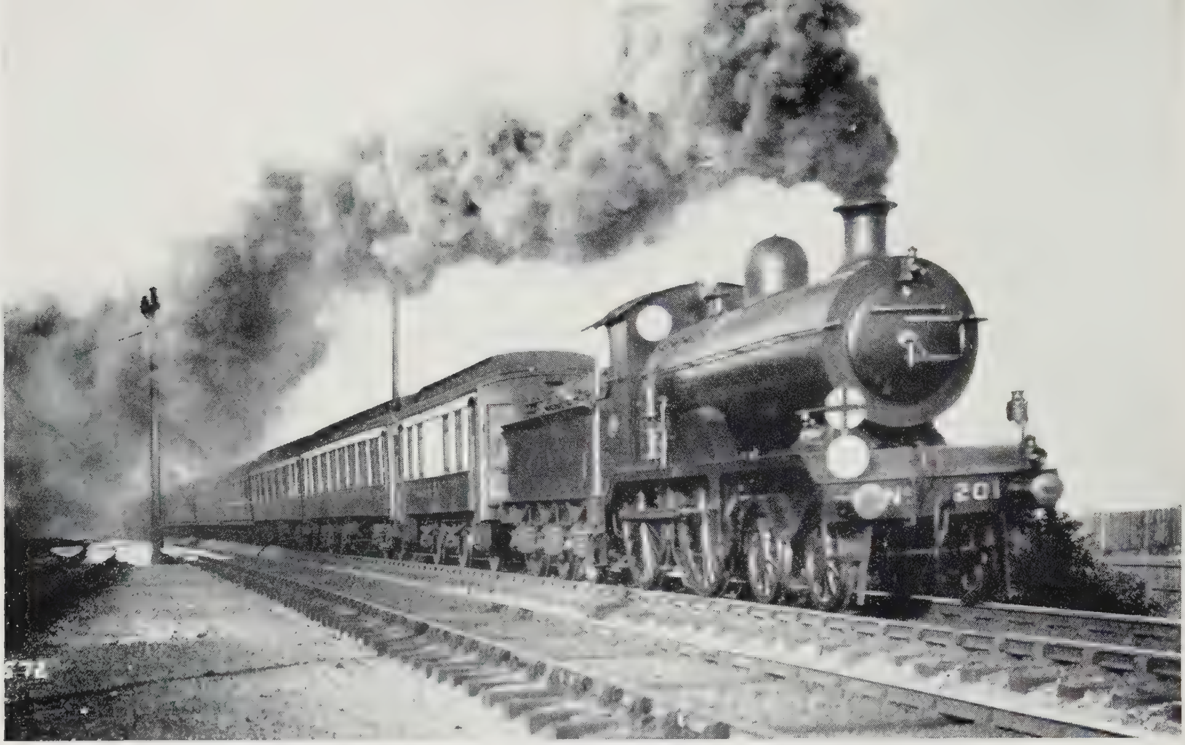
Stroudley's 'Gladstones' on the Brighton line. *Hayling* is shown in mint condition (*above*). She was the only one of the class to be involved in a major accident, when a cast-iron bridge collapsed at Norwood Junction under the 8.45 a.m. up fast business train. The skill of her driver resulted in a perfect stop, with all the train off the road but with no serious injuries. The other (*below*) is No. 174 (formerly *Fratton*), with a Marsh boiler. Both were built in 1890 and lasted until 1926 and 1930 respectively.

[*Below: H. Gordon Tidey*

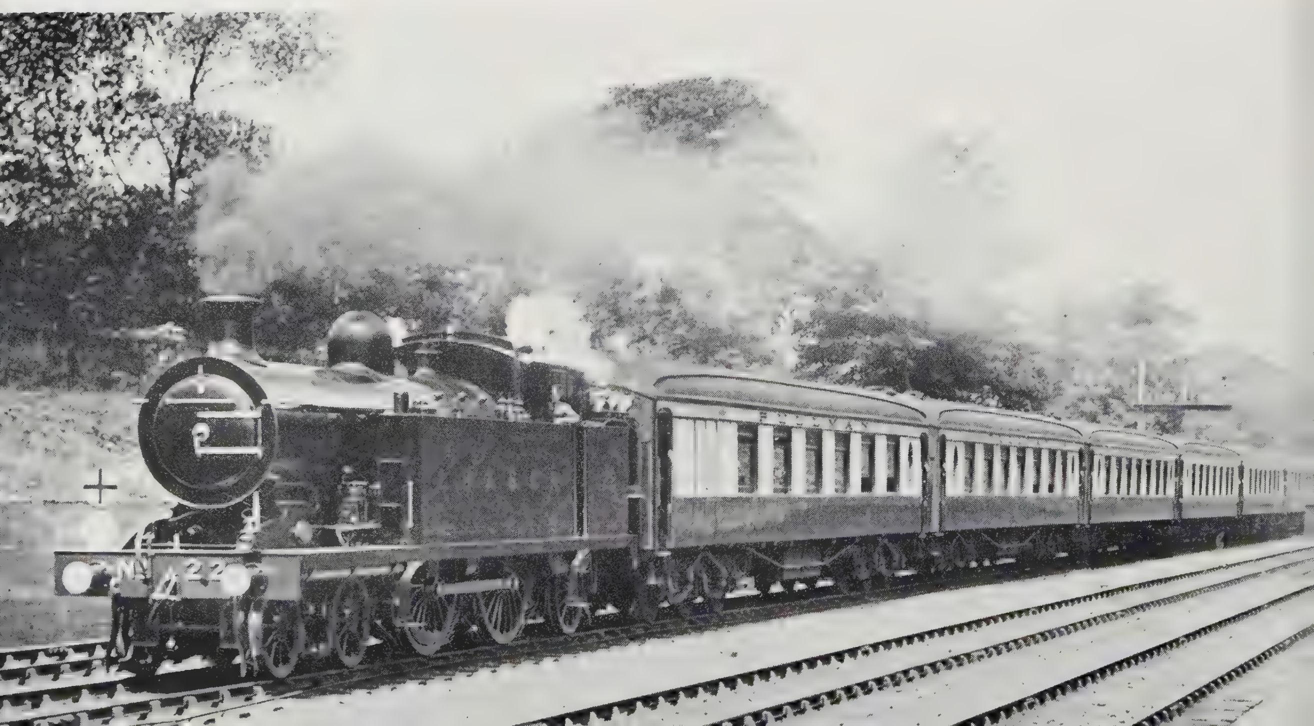


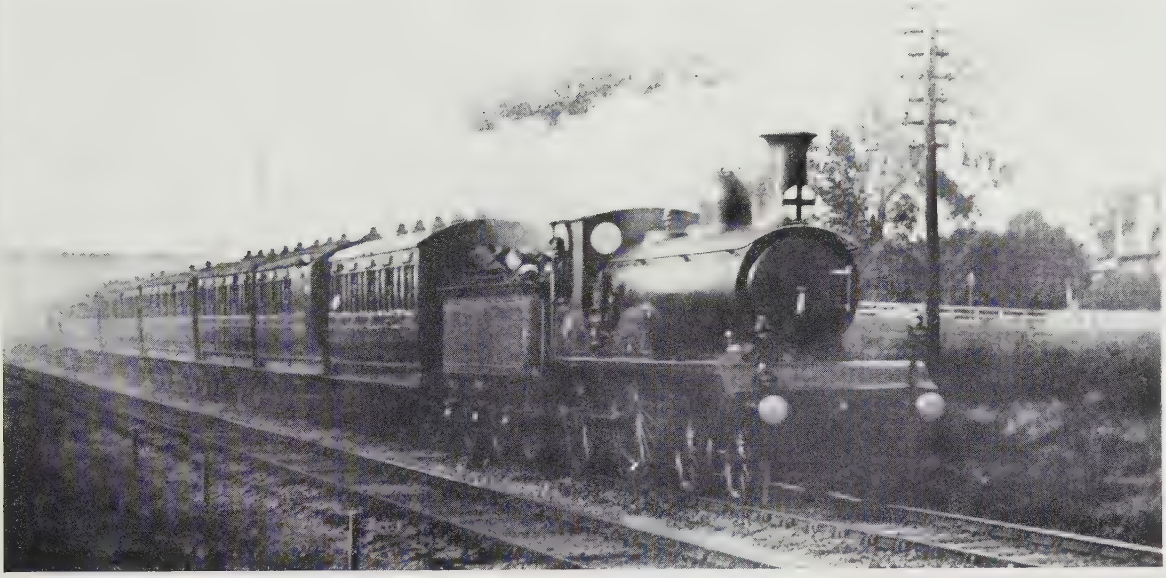


Brighton 'Gladstones' near Balham Intermediate Signalbox. The *upper* view is the later one, taken in 1911, and shows the Gold Medal Engine, *Edward Blount*, of 1889, heading an Eastbourne Pullman train. The panniers on the smokebox are part of Hammond's apparatus for preheating the air admitted to the firebox. Fortunately for appearances, no more were made. It was one of several gadgets essayed by the Brighton company about that time. *Below* is a down Pullman train of the 'nineties.

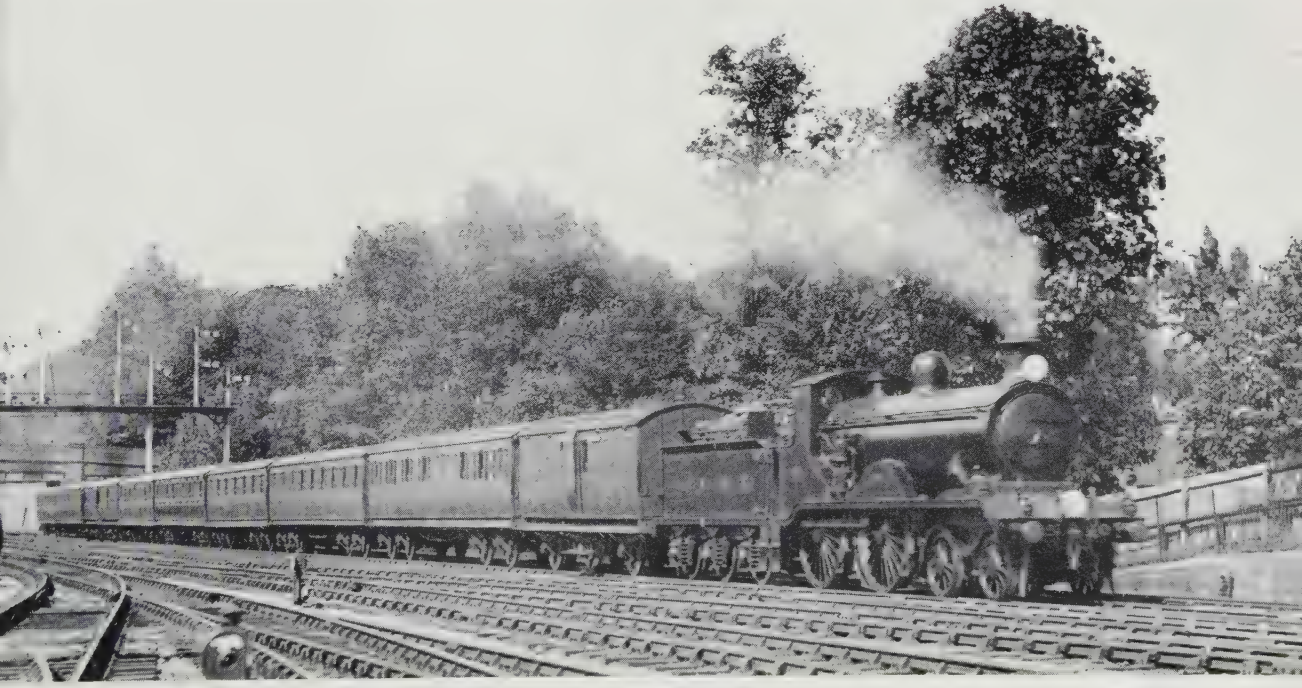


Pullmans. Class 'B2x' No. 201 (rebuilt 1909) heads a mixed rake (*above*), of which the first three vehicles are a 'Pullman Pup' lighting van and two American-built Pullman cars. The famous 'Southern Belle', the first all-British Pullman train, placed in service in 1908, is headed by Class 'I3' superheated 4-4-2 tank engine No. 22, built by D. E. Marsh in the same year (*below*). She was the first superheated engine in British fast passenger service.

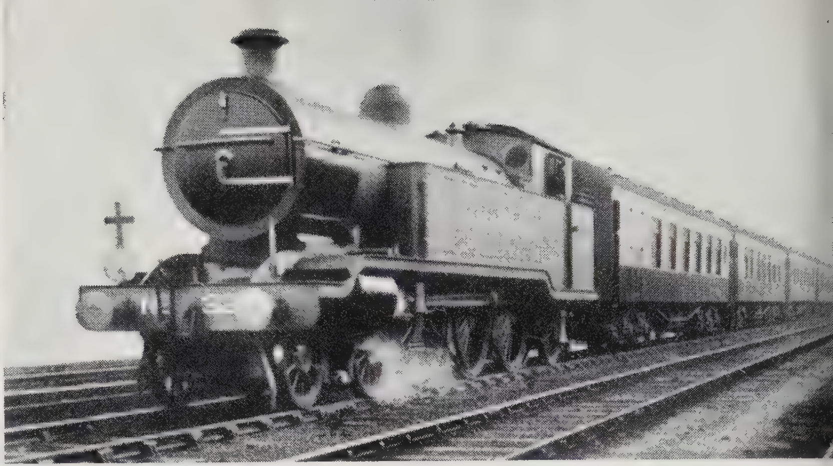


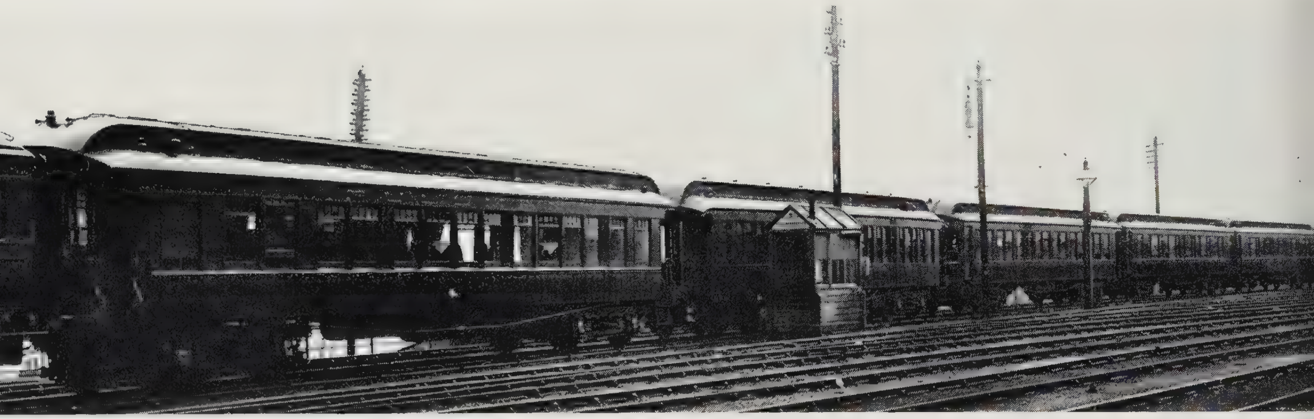


Billinton's Brighton bogies. R. J. Billinton's first express engines were Class 'B2' ('Grasshoppers'), of which *Rothschild* is shown *above*. They were nice-looking, but disappointing, engines. Much better was Class 'B4' ('Scotchmen'), of which *Devonshire*, formerly *Holyrood*, is shown *below*. She held the record for the London–Brighton run, made in 48 minutes 41 seconds in July 1903. Here she has Marsh modifications, but retains the old short smokebox.

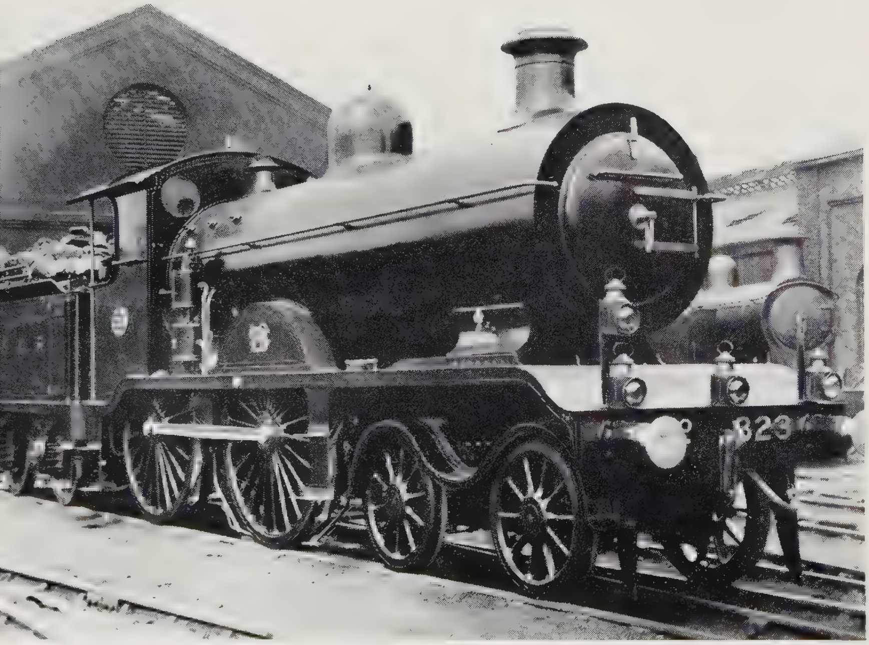


Right: The pioneer L.B.& S.C. 4-6-2 tank No. 325 *Abergavenny* leaves Brighton with the up 'Southern Belle' soon after its entry into service.

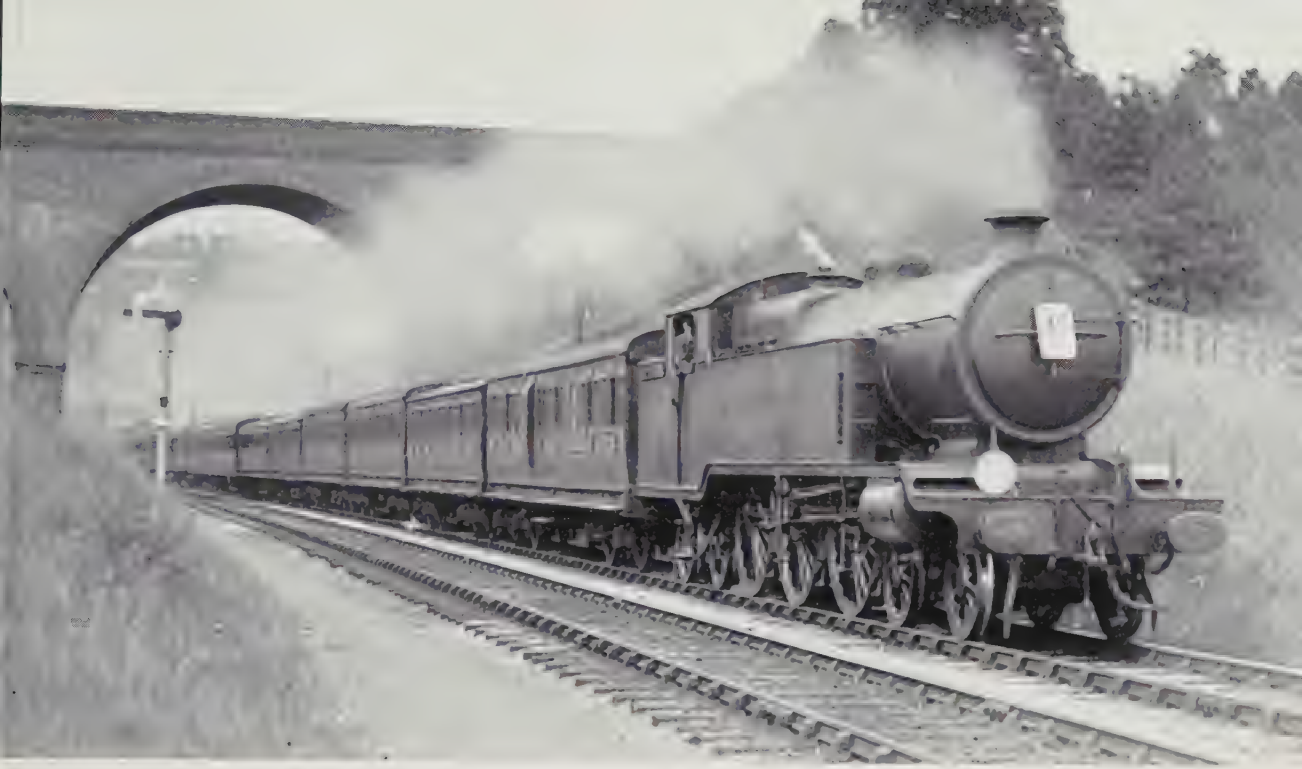




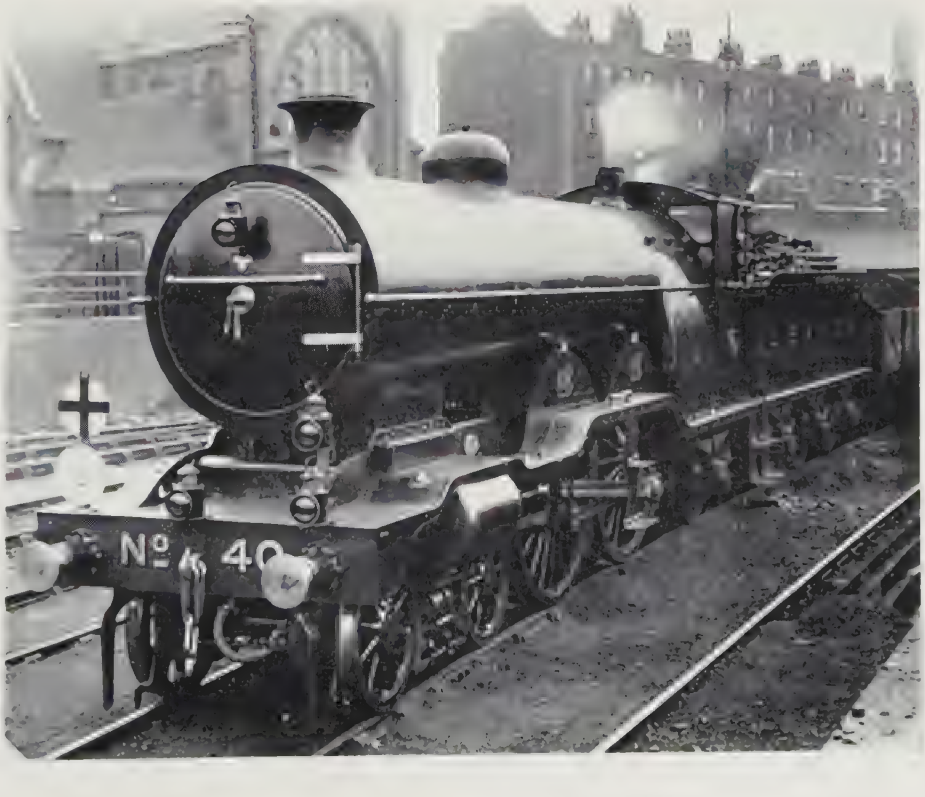
Above: Pullman cars with narrow vestibules, instead of the old open platforms, made their first British appearance on the Brighton line in three cars built in America in 1888. Here is a rake of five, some time in the 'nineties, with a 'Pullman Pup' lighting van on the extreme right. These followed Pullman contours, but were built at Brighton and were carried on six-wheeled underframes. At this time, Pullman cars were painted a very dark, greenish brown, and externally decorated with elaborate gilt designs, as were the sides of the clerestories. Roof coverings were painted red oxide. They were equipped with both electric and kerosene lamps.

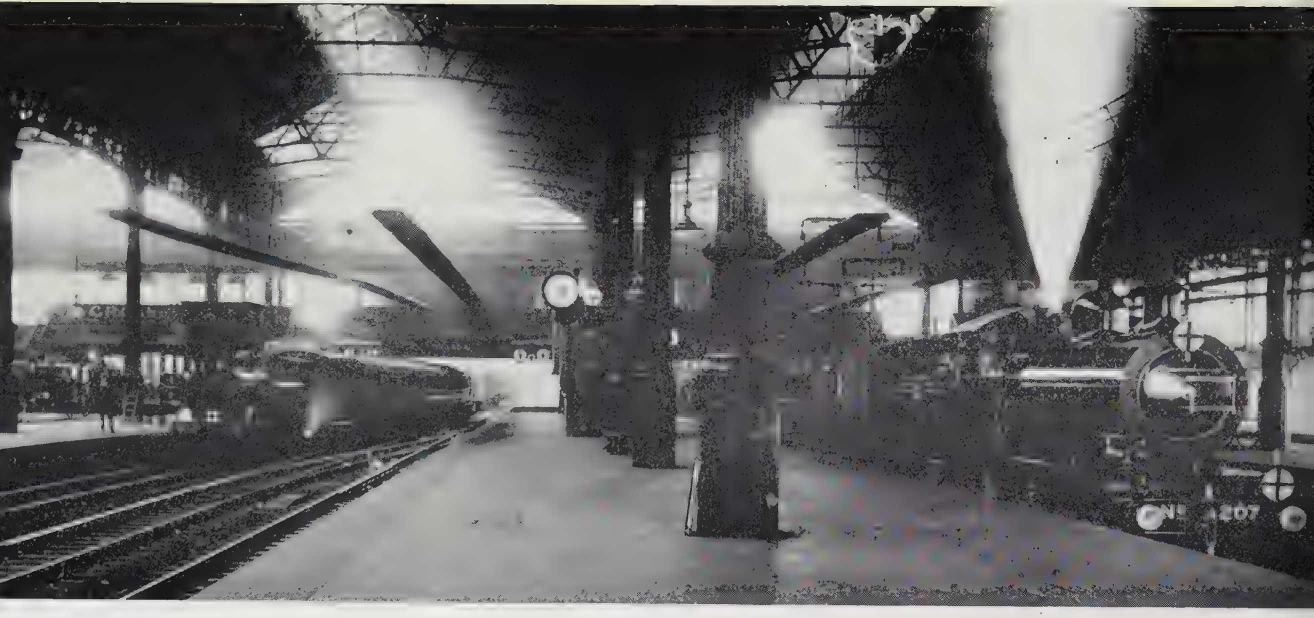


Left: Close-up of Class 'B2x' No. 323, rebuilt at Brighton in 1908 from Class 'B2' *William Cubitt* (1896). The engine has very nice lines, but the rebuilt version, like the original, produced its disappointments.

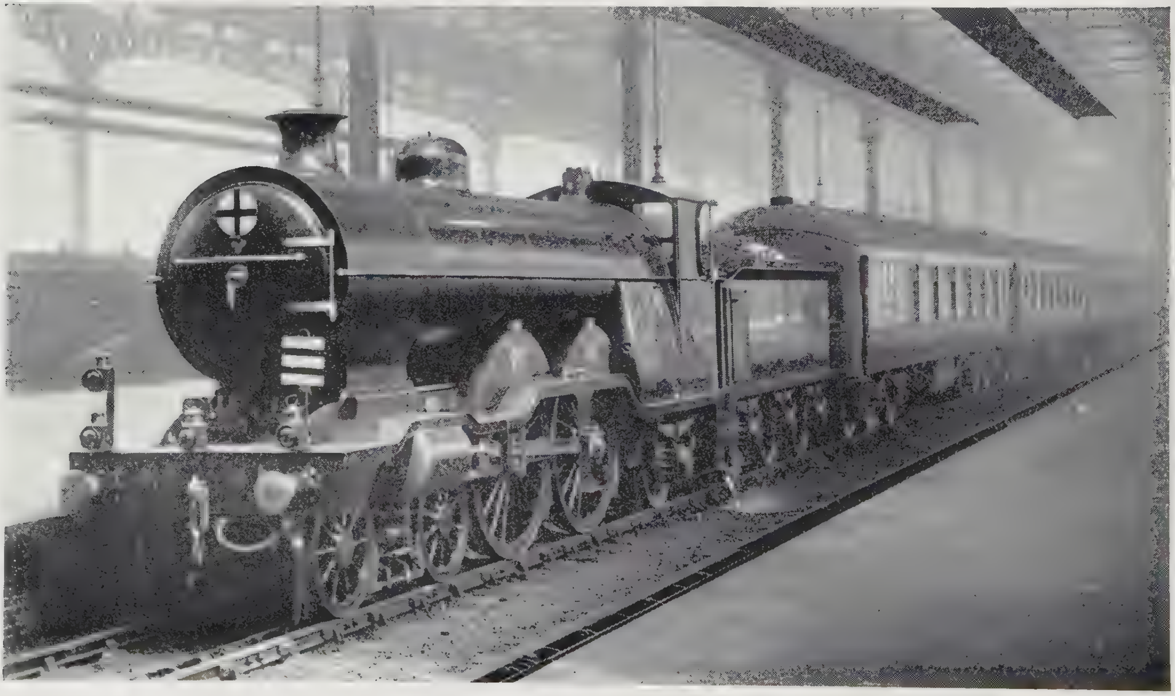


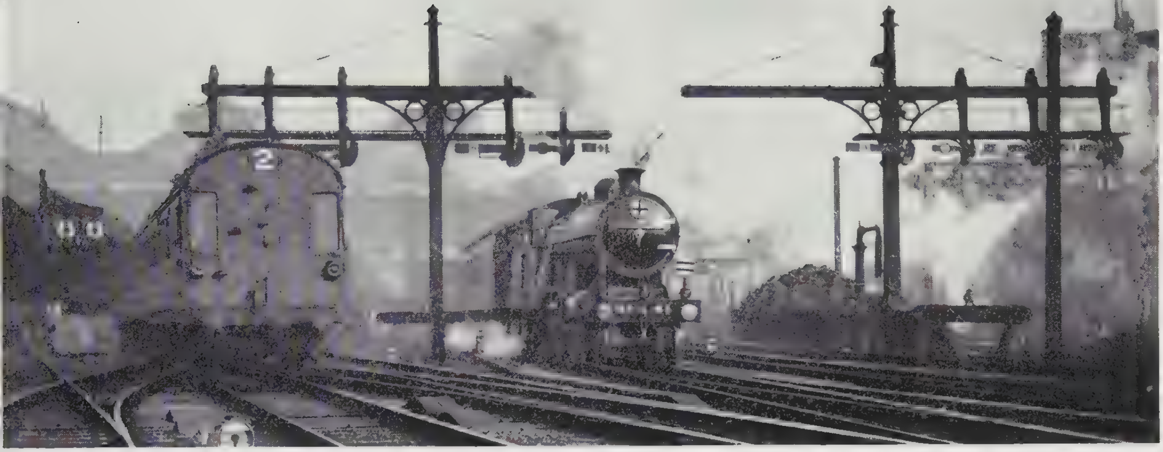
A Brighton excursion in the nineteen-twenties, near Merstham (*above*). Heading the train is one of Lawson Billinton's very handsome 4-6-4 express tank engines, Class 'L', built between 1914 and 1922. The train is a long, mixed rake of London & South Western eight-wheelers, the older ones dating back to the middle 'eighties. The scene is fairly soon after the formation of the Southern Railway. No. 40 (*right*) is one of D. E. Marsh's first series of Atlantics (Class 'H1'.)



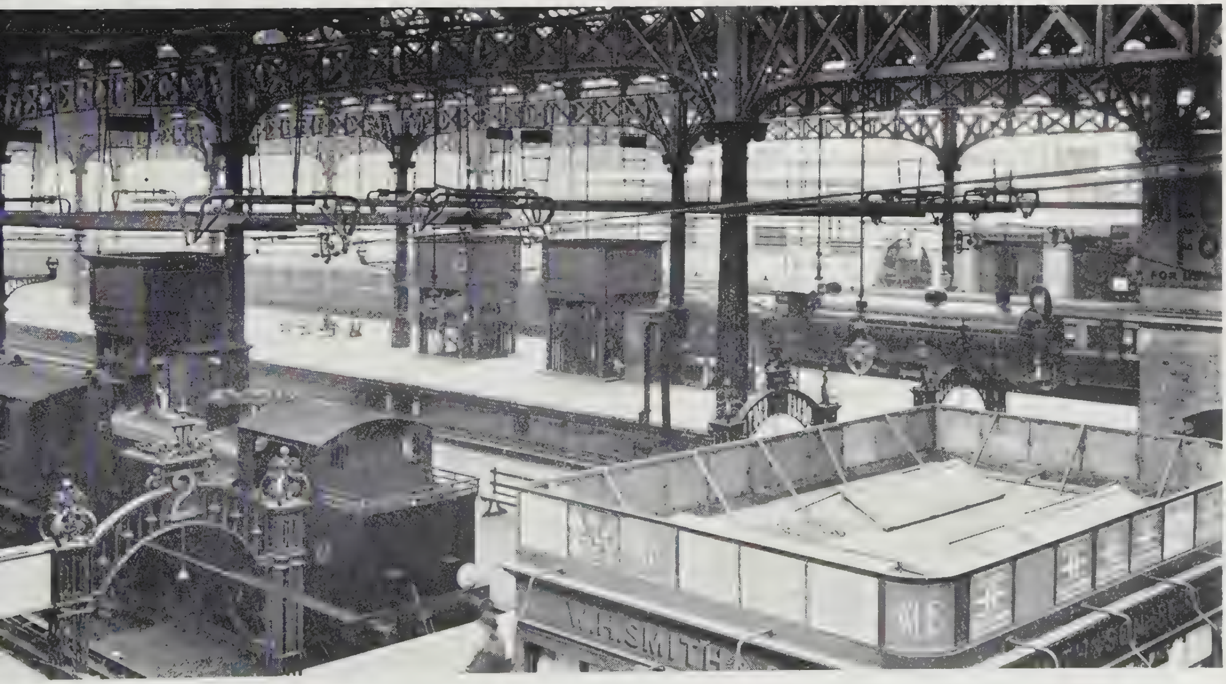


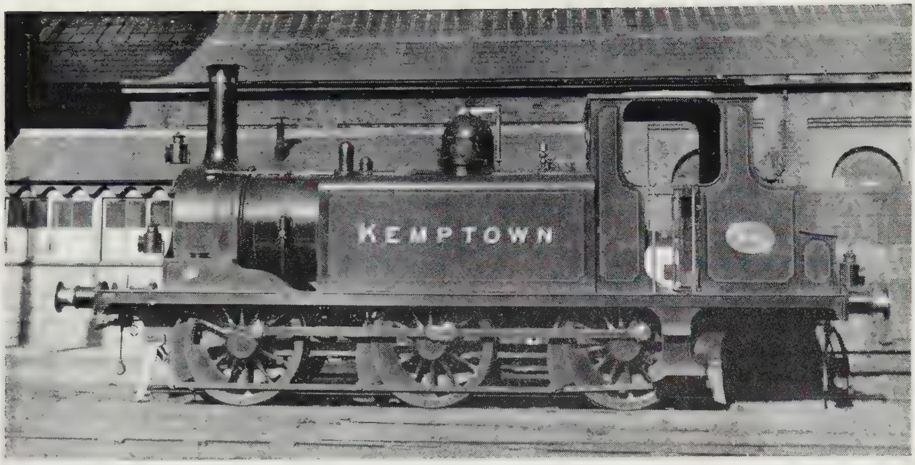
Two scenes in what was the new Victoria station of the London, Brighton & South Coast Railway, completed in 1907. In the *upper* one a 'B2x' vehemently blows off into the overhead conductors of the suburban side; on the left can be seen the three tracks narrowing to two, a particular feature of the new station, which still persists. *Below:* Class 'H1' Atlantic No. 41 heads the 'Southern Belle'. Both views are pre-1914.





Two more views of the transformed Victoria. In the *upper* one, the same 'Southern Belle' train with No. 41 is pulling out below the route-numbered home signals, while an up Brighton fast, composed of 'balloon' stock, rumbles in on the left. *Below* are the platform ends and barrier-arches, with, on the left, an 'E5' 0-6-2 tank engine, and on the right an 'H1' Atlantic.

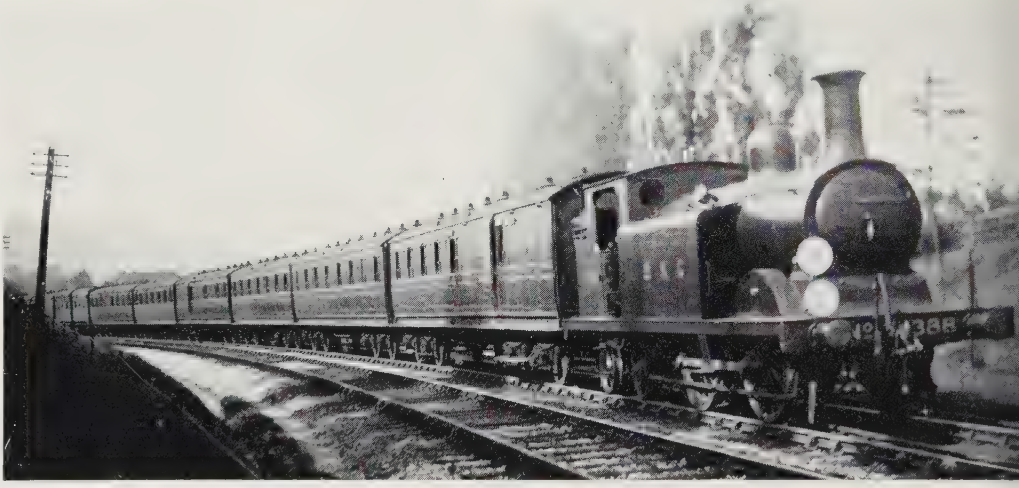


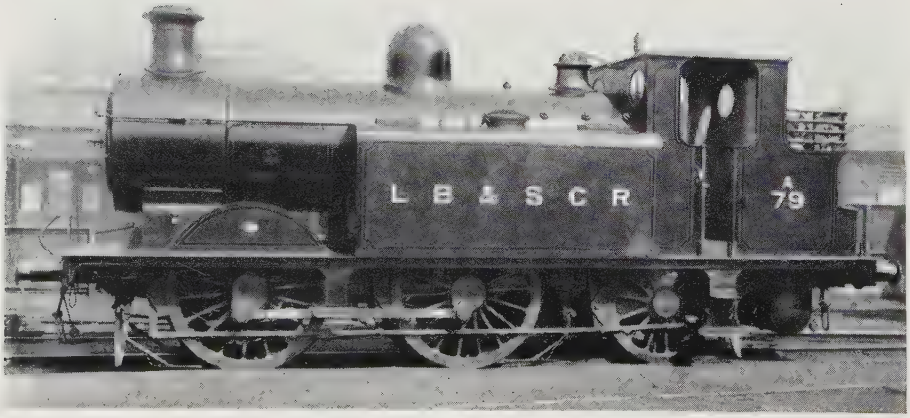


Stroudley's Brighton 'Terrier' No. 64, *Kemptown*. Built in 1874, she ran until 1902, but a few of her sisters are still in service in the Southern Region of British Railways.

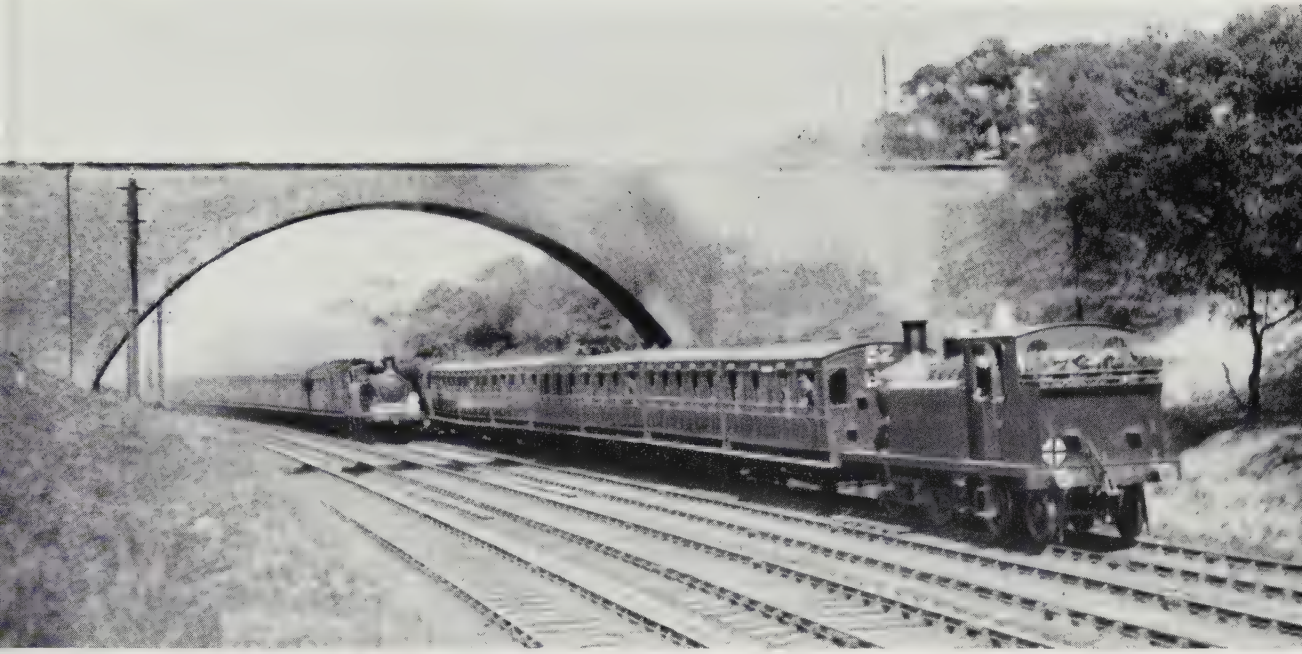
R. J. Billinton's first Brighton locomotives, and the first bogie engines the company had possessed for years, were his Class 'D3' 0-4-4 tank engines. Here No. 388 (formerly *Emsworth*) pulls southwards out of Dorking.

[*H. Gordon Tidey*

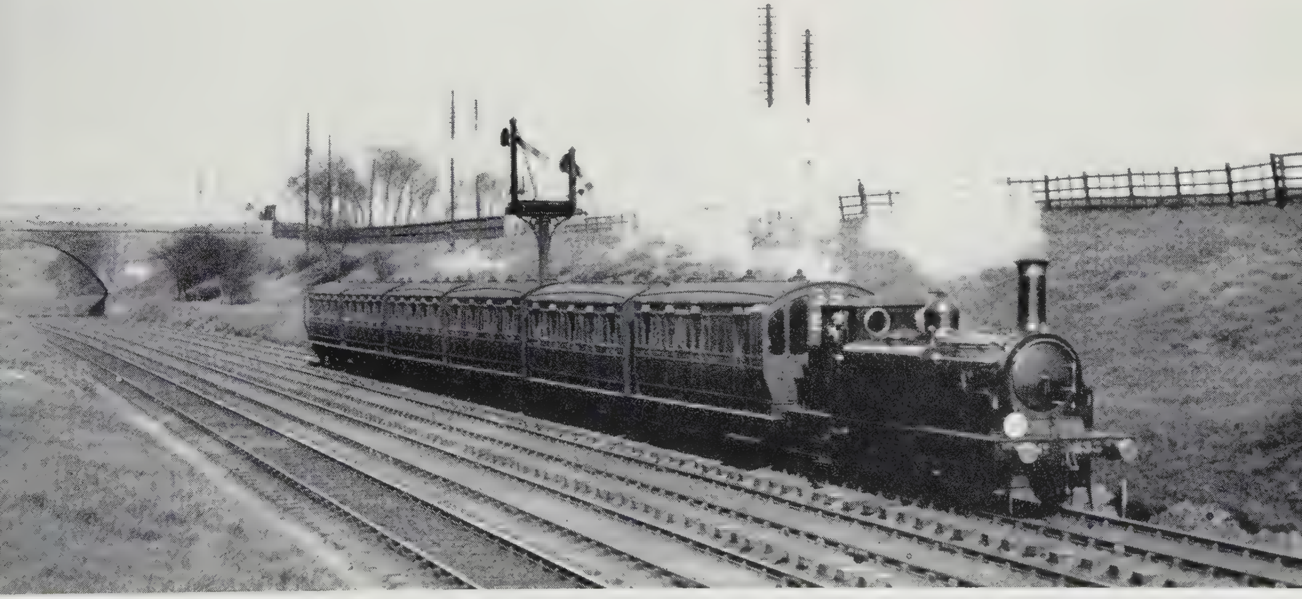


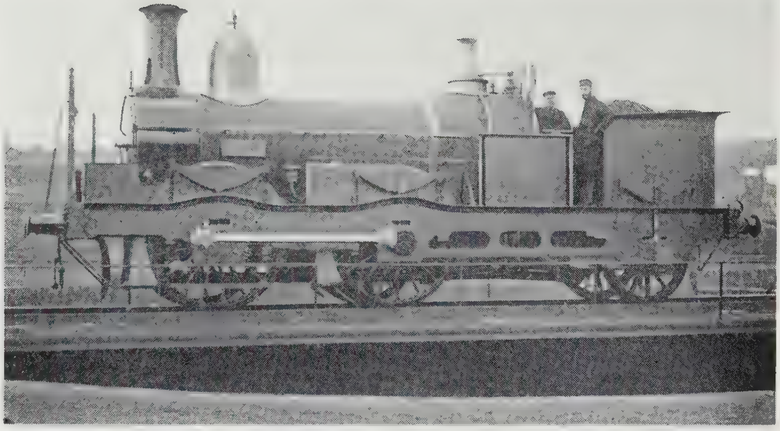


Only one of Stroudley's celebrated Class 'D' tank engines was rebuilt with a higher-pitched boiler and saddled smokebox. No. 79A had been No. 20, *Carshalton*, built in 1875. She was rebuilt in 1910 and later became successively No. 349 and 216 – an oddity.

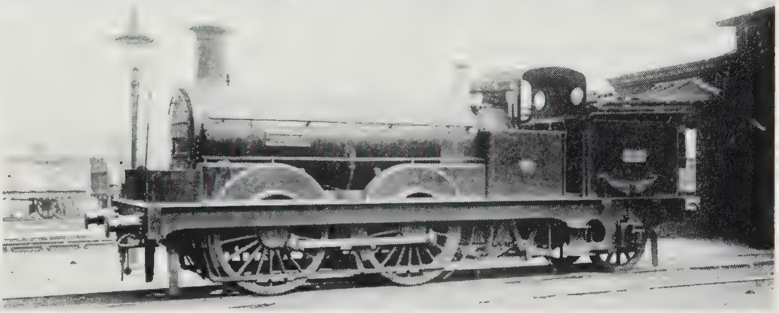


Brighton line trains on New Cross bank. Of the two 'D3' 0-4-4 tank engines (*above*), both rebuilt by D. E. Marsh, the nearer one is hauling a set of Stroudley's rather fearsome suburban four-wheeled coaches. The view has the appearance of Saturday midday. A Stroudley 'D1' tank engine heads a rake of Billinton suburban coaches (*below*).



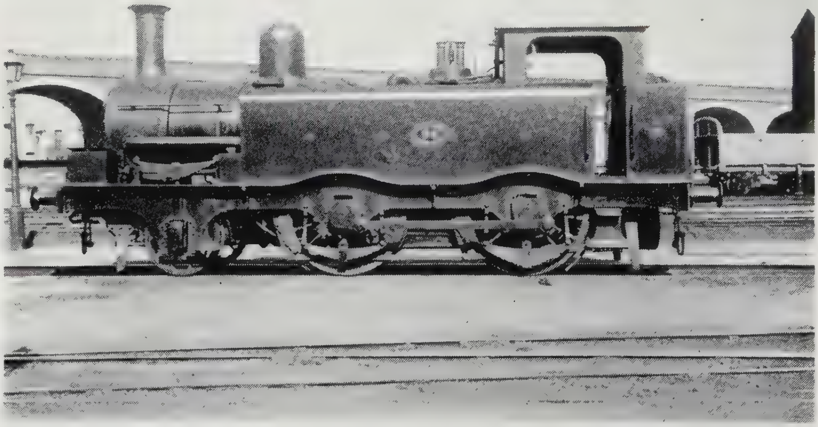


Tank engines of the London, Chatham & Dover Railway: This is the Class 'E' 0-4-2 *Bute*, built by Neilsons in 1866.

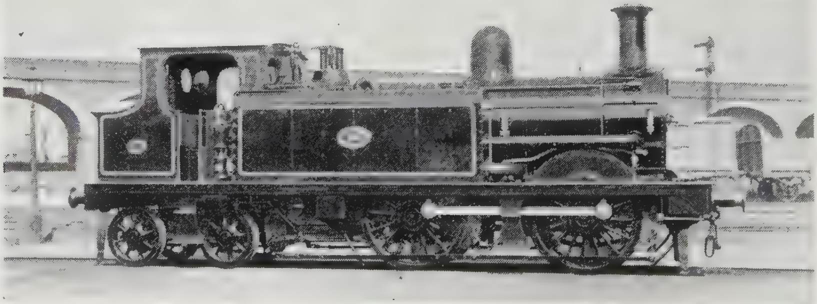


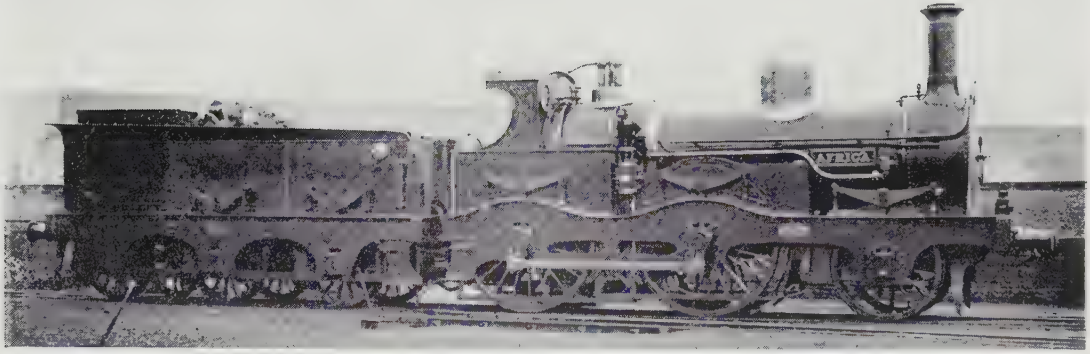
Class 'D' 0-4-2 *Scotia*, built by Neilsons in 1873. L.C.& D. engines lost their names during Kirtley's regime as the railway's locomotive engineer.

Class 'F' 2-4-0 No. 62, a type nominally rebuilt by Kirtley from Hawthorn 4-4-0 saddle tanks of 1858 at Longhedge works in 1876. Nothing of the original engines can be traced. These supposed rebuildings were for the satisfaction of auditors.

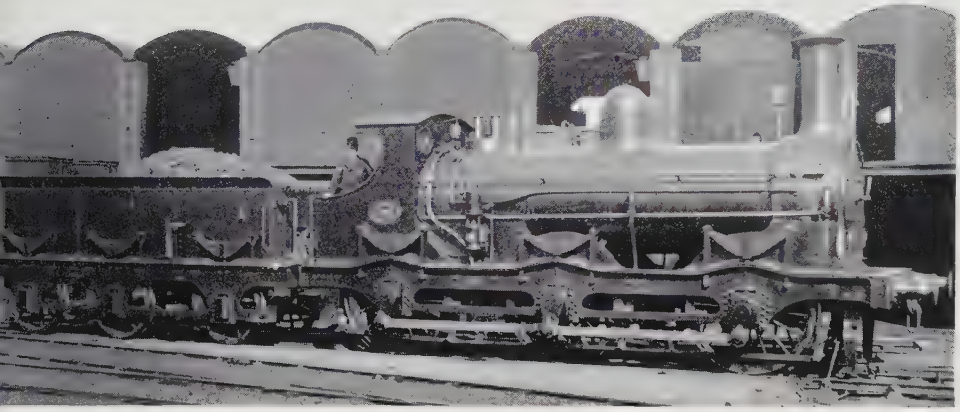


London, Chatham & Dover Class 'A' condensing 0-4-4T No. 112, built by Vulcan in 1875.

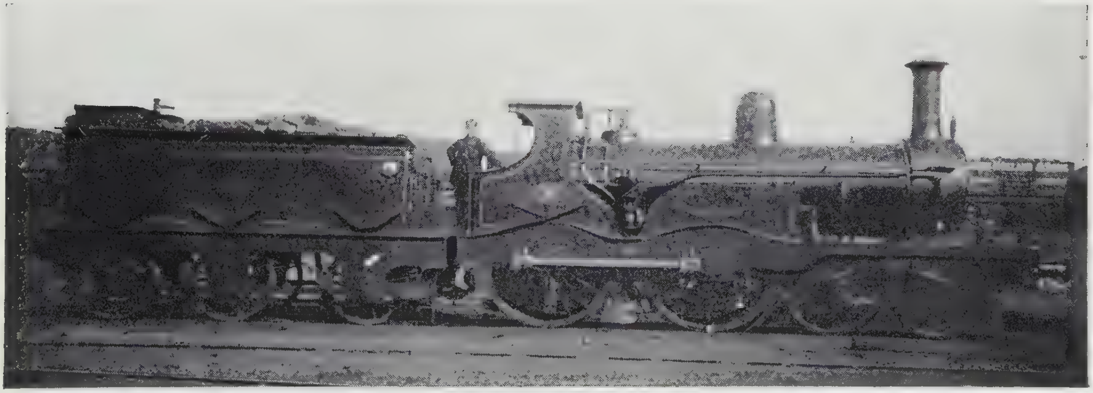




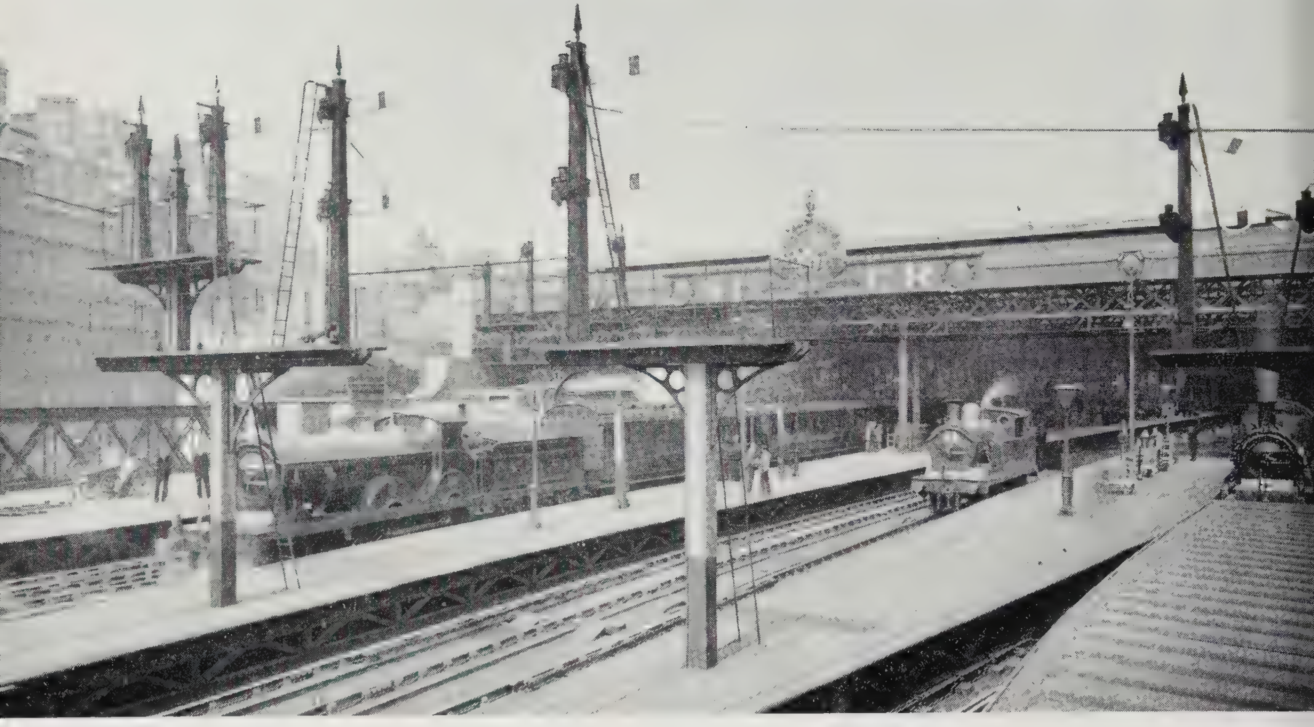
One of the best-known of L.C.&D. types–the 'C' class 2-4-0s designed by Martley and built by Sharp, Stewart in 1873. This is No. 55 *Africa.*

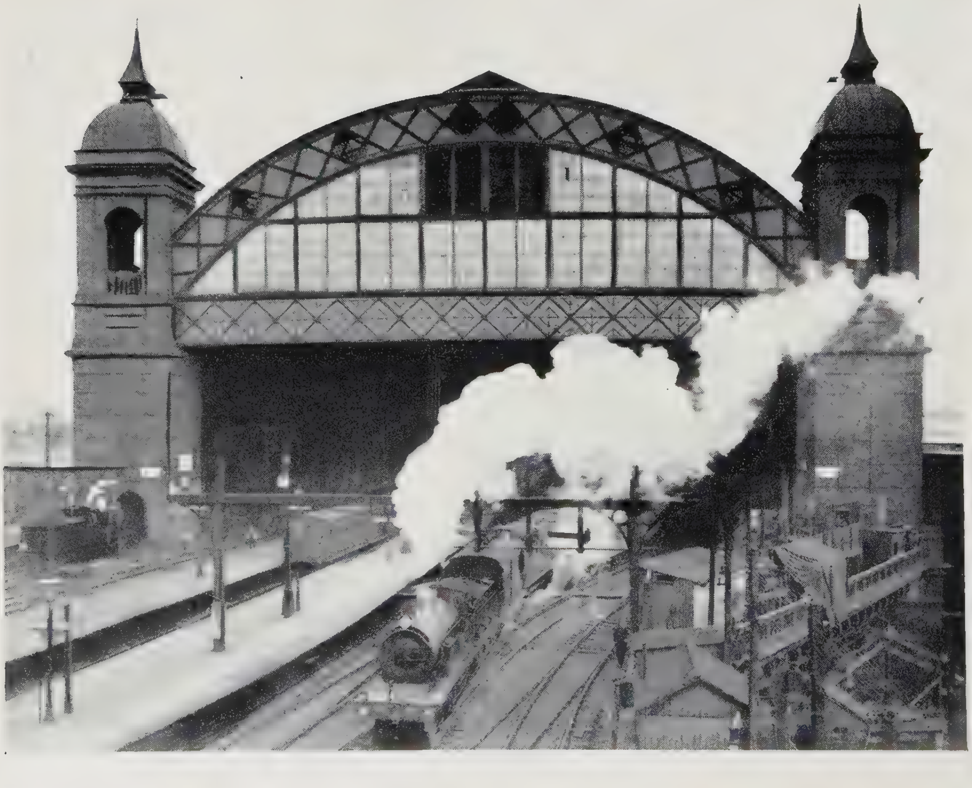


Dating back to 1861, the L.C.&D. '113' class goods engines were among the oldest to come into the South Eastern & Chatham stock at the end of the century. This is a pre-S.E.& C. shot, showing one of them as rebuilt with a Kirtley boiler.



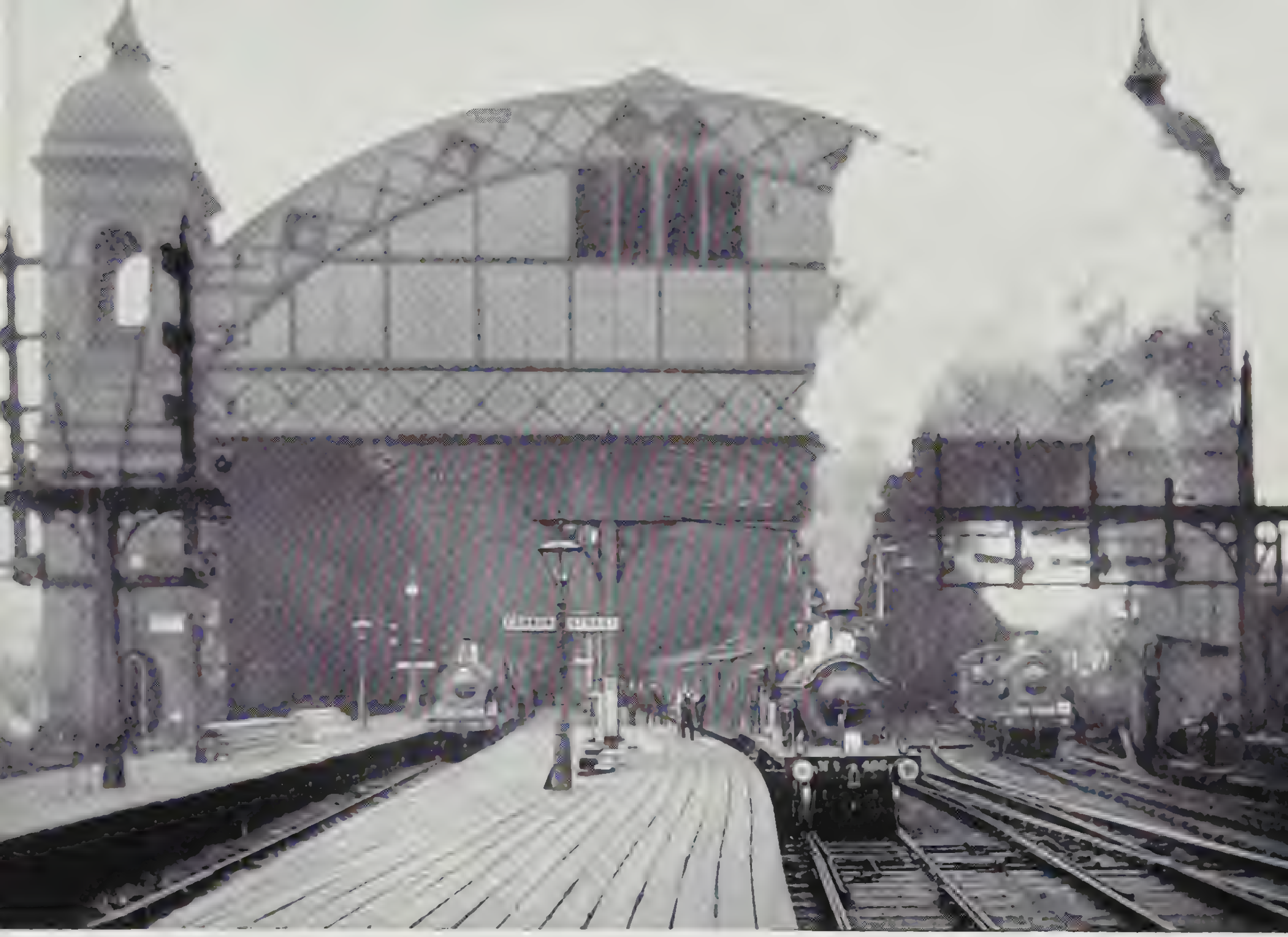
No. 31 was one of the L.C.&D. Crampton 4-2-0s of 1862, built by Stephensons, which were soon rebuilt as 4-4-0s by Martley at Longhedge, and were finally reboilered by Kirtley in 1879.





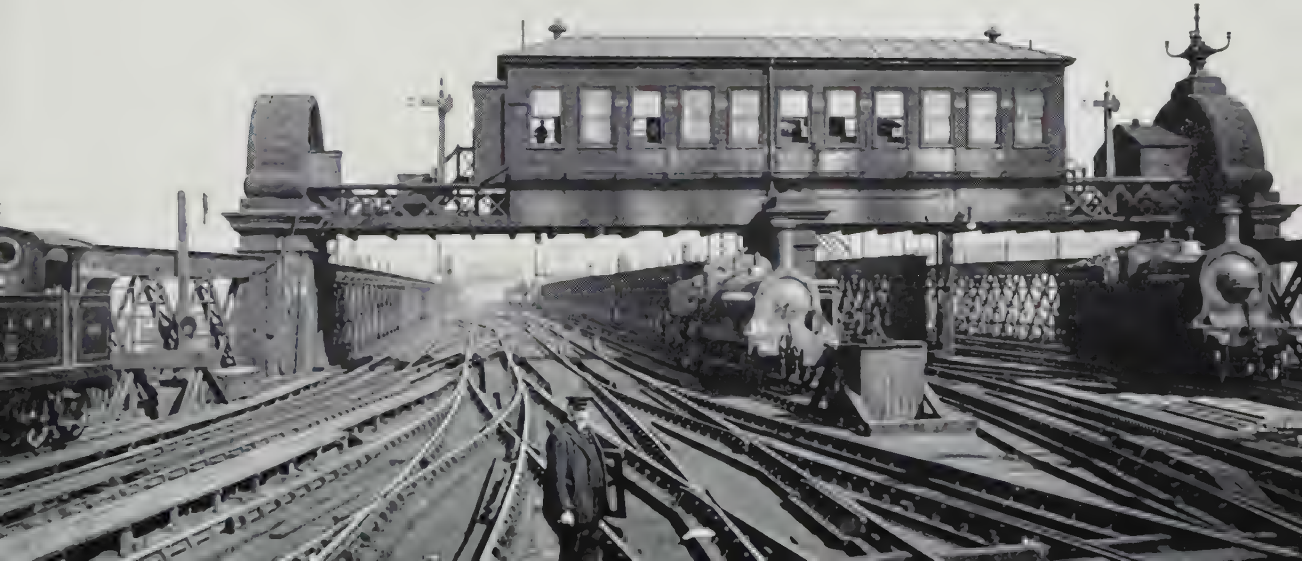
Above: This view of Charing Cross at about 1910 shows, on the left, a Wainwright Class 'D' 4-4-0 with effulgent brass dome, waiting to leave with a down express, in the centre a Class 'H' 0-4-4 tank and on the extreme right a Stirling tank locomotive on a Dartford train. The station has a new roof, replacing that which collapsed.

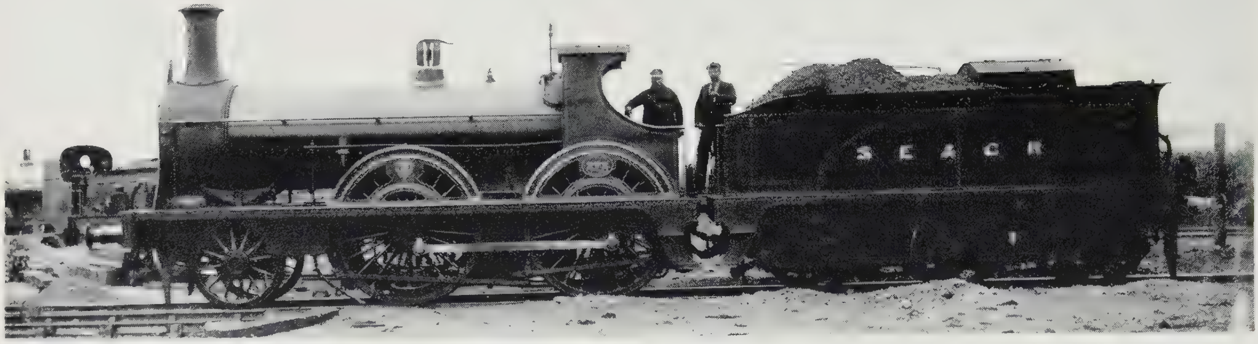
Left: Full of the pride of the late eighteen-sixties, the South Eastern's terminus at Cannon Street was one of the finest structures on Thames side. Today, Hawkshaw's great roof has gone; the towers stand gaunt, alone and forlorn.



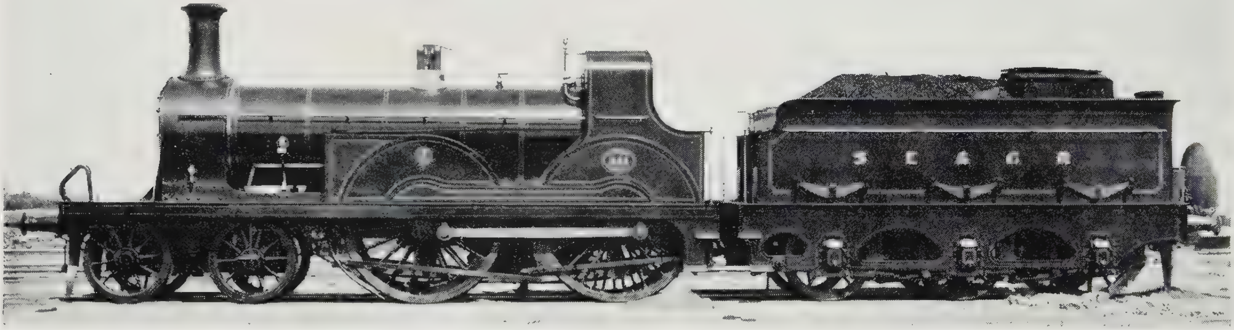
Above: Ex-L.C.& D. Class 'M3' 4-4-0 No. 485 pulls out of Cannon Street with an express. On the left is a Class 'H' 0-4-4T on local train for Dartford via Sidcup, on the right a Class 'Q1' 0-4-4T (rebuilt from a Stirling Class 'Q' 0-4-4T) leaving with a local for Dartford via Greenwich.

Below: The view out over Hungerford Bridge from Charing Cross about 1908. Just coming into the picture on the extreme left is a Class 'H' 0-4-4T; in the left centre distance what appears to be a Class 'Q' 0-4-4T is approaching over the bridge with the stock of the Folkestone Car train; in the centre foreground is a Stirling Class 'O' 0-6-0; and on the right is a Stirling Class 'B' 4-4-0.



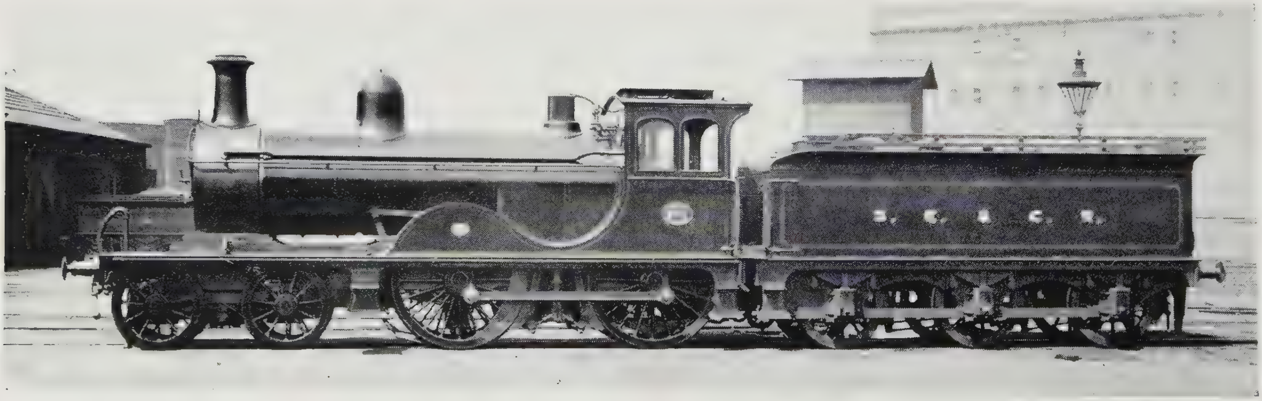


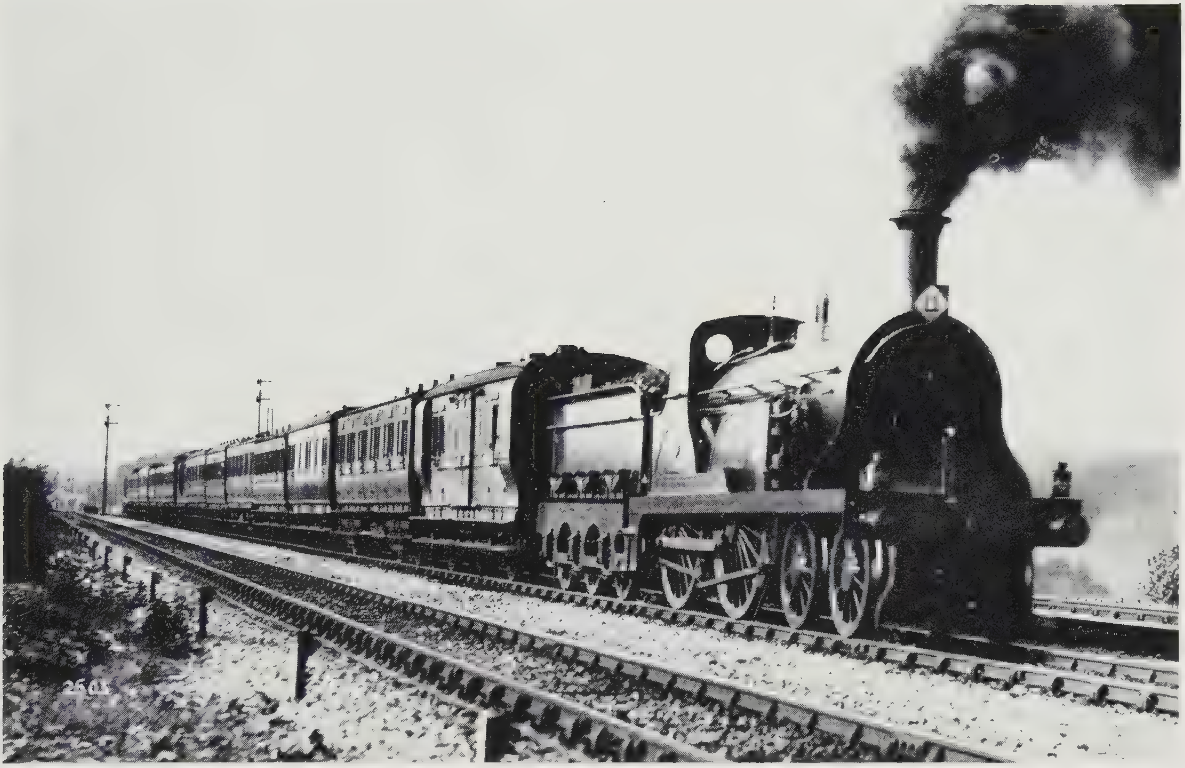
The 'Ironclads'. Ordered quite improperly over the head of his Locomotive Superintendent by Sir Edward Watkin for the South Eastern Railway, these were designed by John Ramsbottom and consequently reproduced old London & North Western practice very closely. The domeless boiler was James Stirling's subsequent addition.



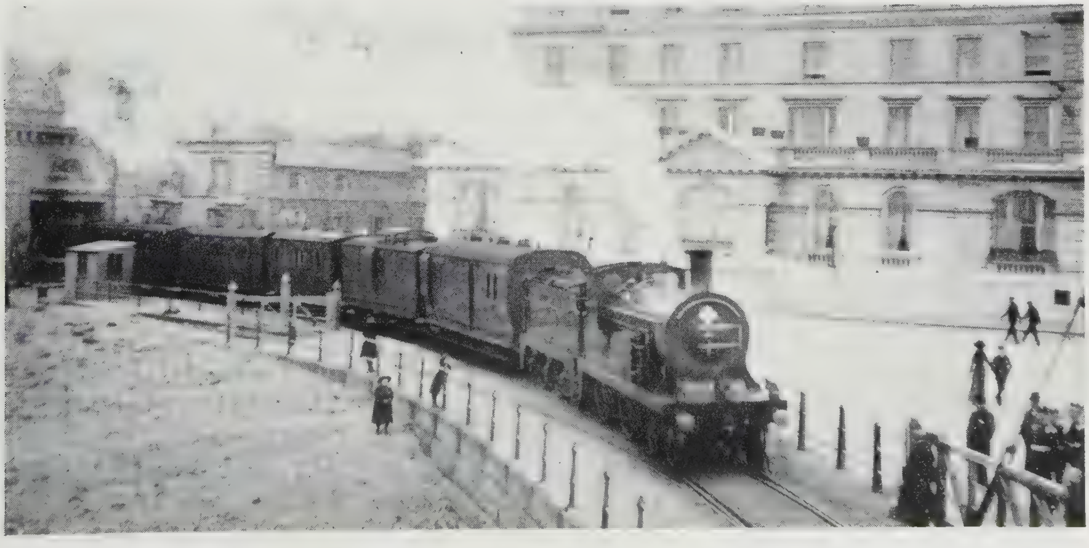
James Stirling's 7 ft. coupled engine, No. 241, built for the South Eastern Railway in 1885 (*above*). Many were built, and they lasted long enough – even some with the old domeless boilers – to serve the Southern Railway into the nineteen-thirties.

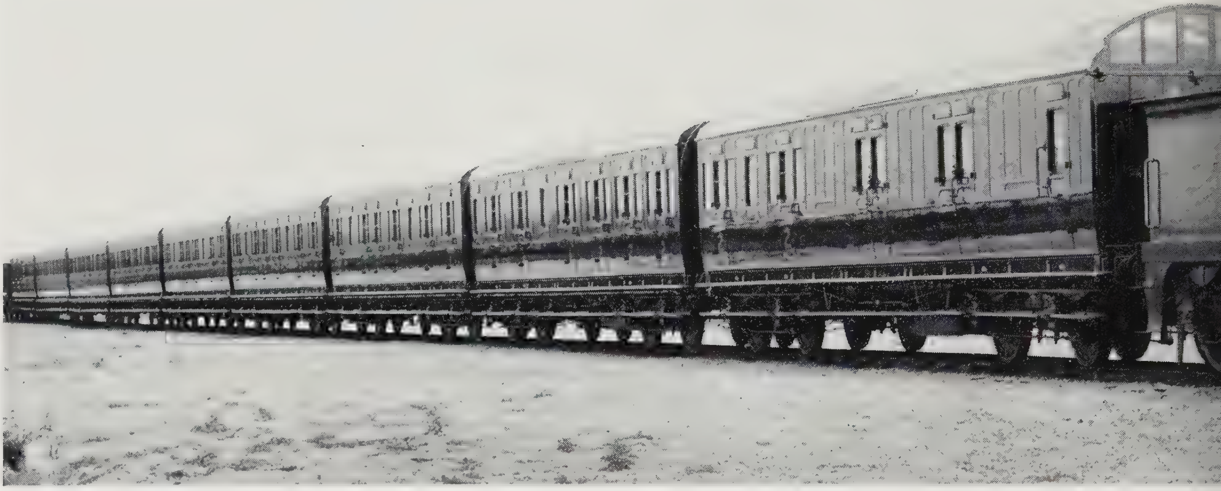
At the end of the century the London, Chatham & Dover, always looking out for a bargain, snapped up a series of Pickersgill bogie express engines which had been intended for the Great North of Scotland Railway. The design was absolute Great North, though in later years the South Eastern & Chatham made a few modifications (*below*).



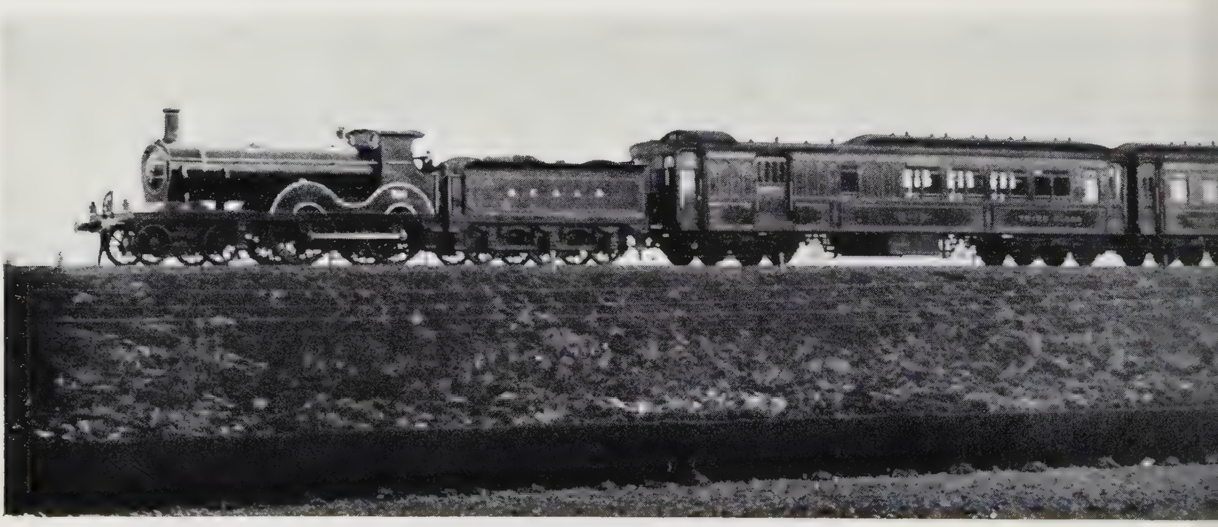


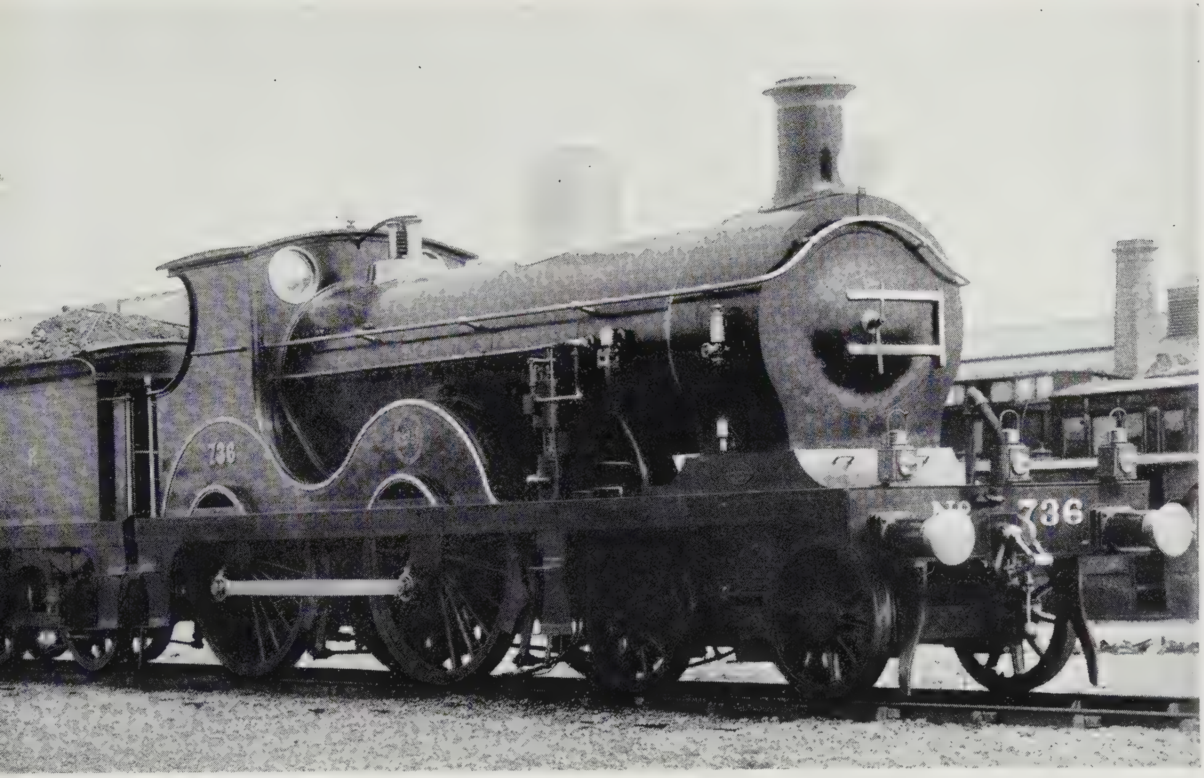
James Stirling's earlier (*above*) and later (*below*) 7 ft. express engines in action on the South Eastern. The upper view is near Chislehurst, and the train includes, second from the tender, one of the first bogie coaches in the South of England, built by R. C. Mansell in 1879. Behind it comes a handsome double saloon. Both trains are Dover Continental expresses. In the lower view the train is swinging in to the then bleak and sea-swept quayside, with the Lord Warden Hotel in the background. Both views were taken in early South Eastern & Chatham days. [*Below: H. Gordon Tidey*



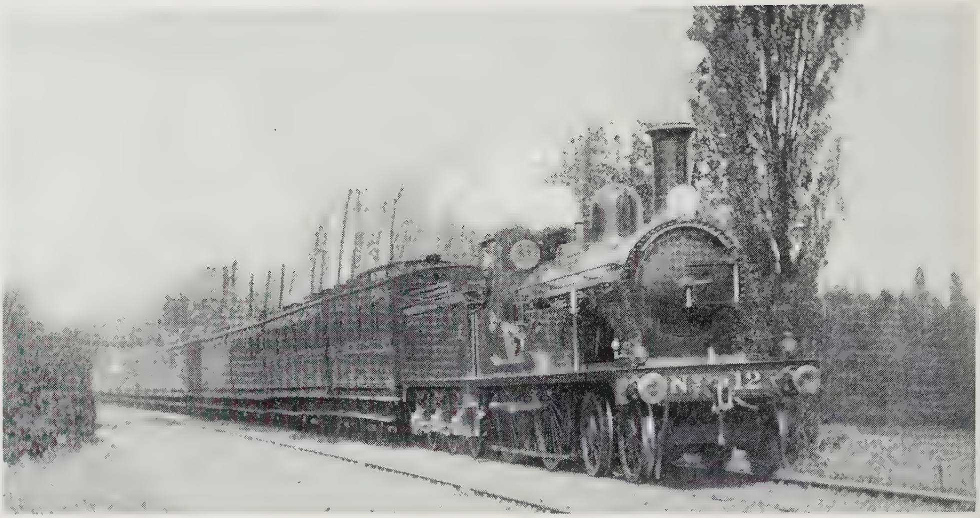


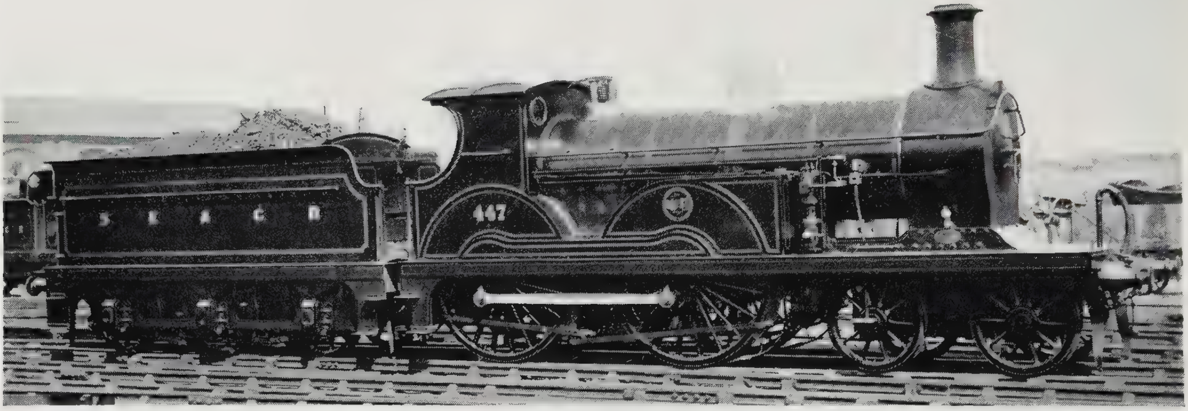
Not all South Eastern & Chatham institutions were things to be proud of, but when and where it was able, the Managing Committee ran some really fast and indeed luxurious trains. That above is a Dover Continental of the early nineteen hundreds. Composed of electrically lit semi-corridor coaches, it was really a very creditable train of its time. In some travel notes the critical Arnold Bennett compared it with enthusiasm to the sort of thing he had been enduring in France. *Below* is the Hastings 'Car Train', built in England in imitation of American Pullman cars, in 1896. The London, Brighton & South Coast was not amused. Both trains are headed by Harry Wainwright's earlier 4-4-0 locomotives. Ironically, the Hastings cars ended their days as the property of the Pullman Car Company. When new they were both sumptuous and supplement-free.

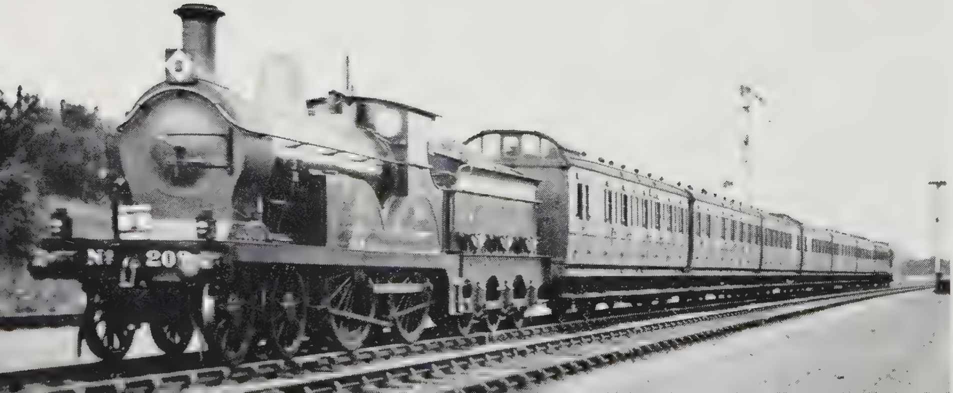



736
No 736

Class 'M3' 4-4-0 No. 12, built at Longhedge in 1896 and withdrawn thirty years later, at the head of a typical L.C.&D. boat train about 1898, passing under the South Eastern main line near Chislehurst.

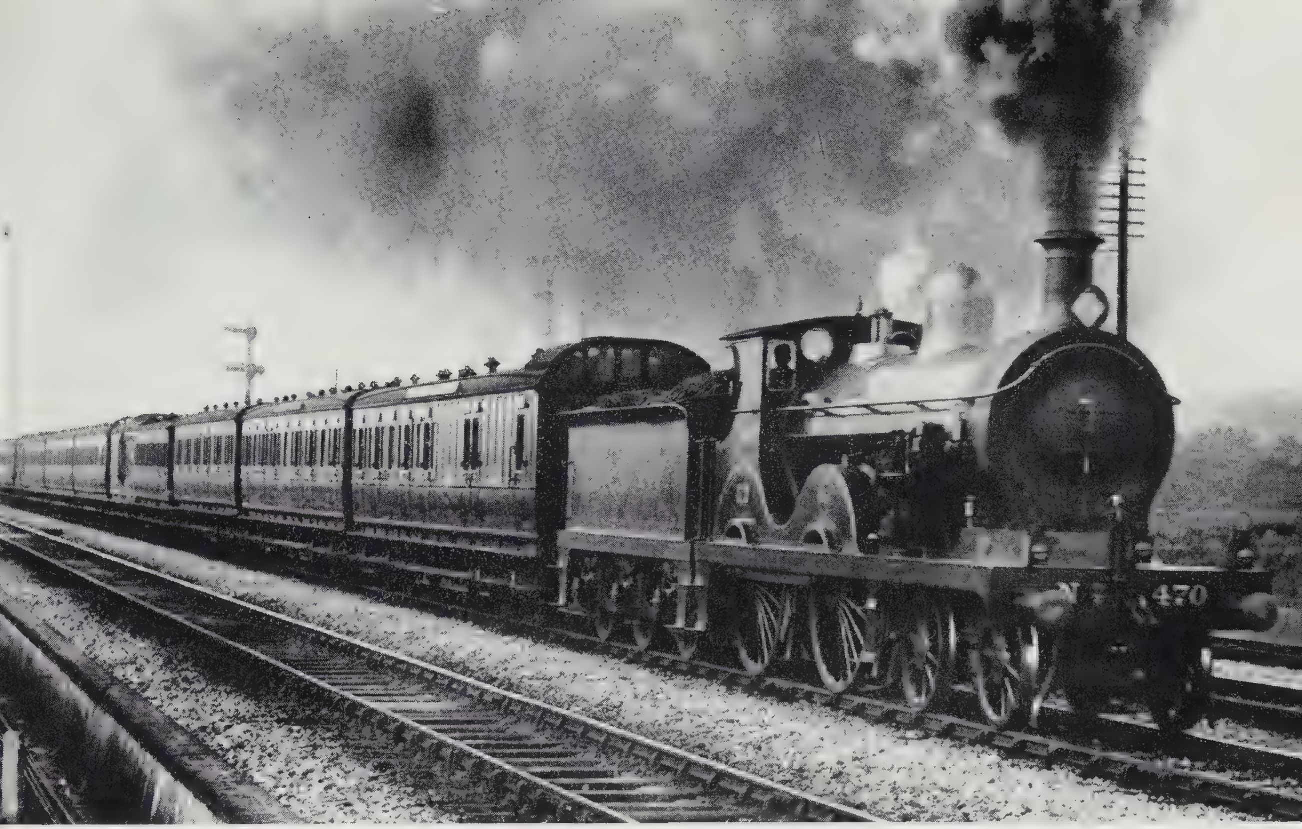




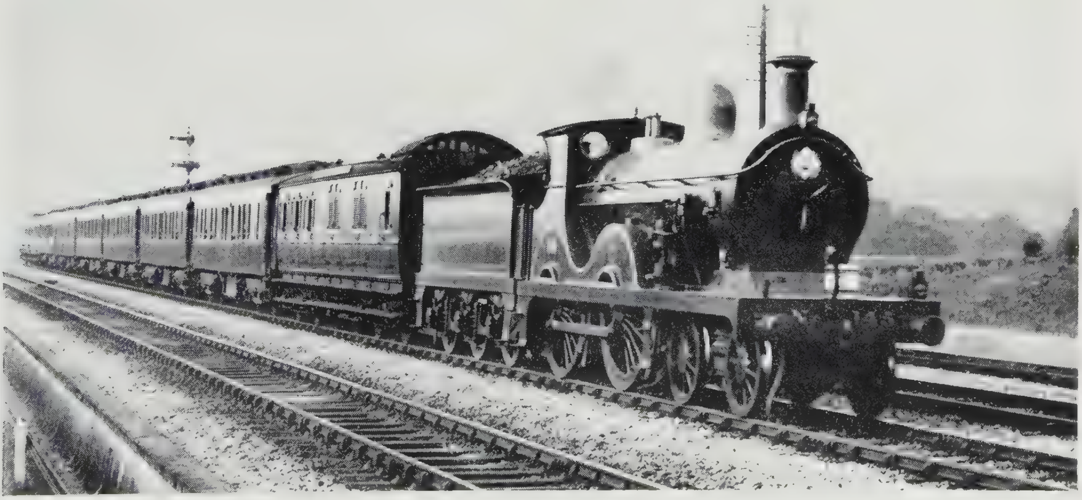


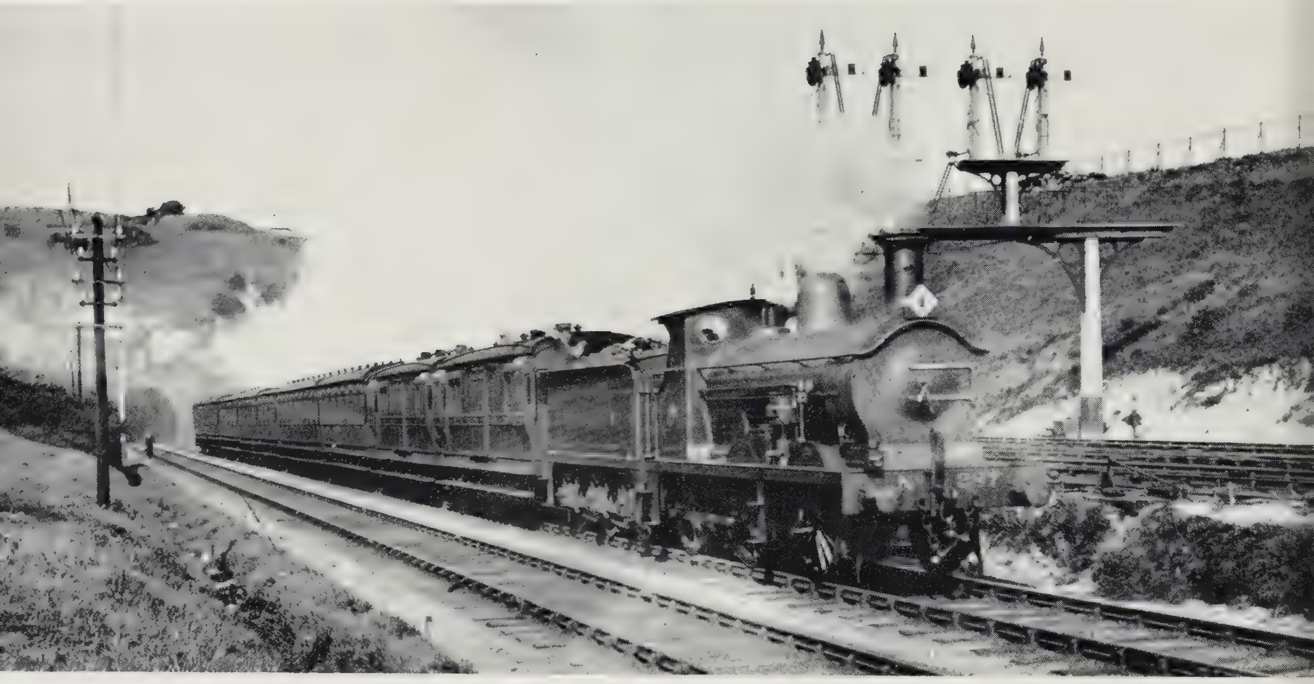
Stirling's South Eastern seven-footers rebuilt. *Above* is the later, '440' class, and *left*, hauling two three-coach sets and some oddments, one of the original design of 1885 (*see page* 118). Extended smokeboxes have not yet appeared; polished brass dome casings are in.

[*Below: H. Gordon Tidey*

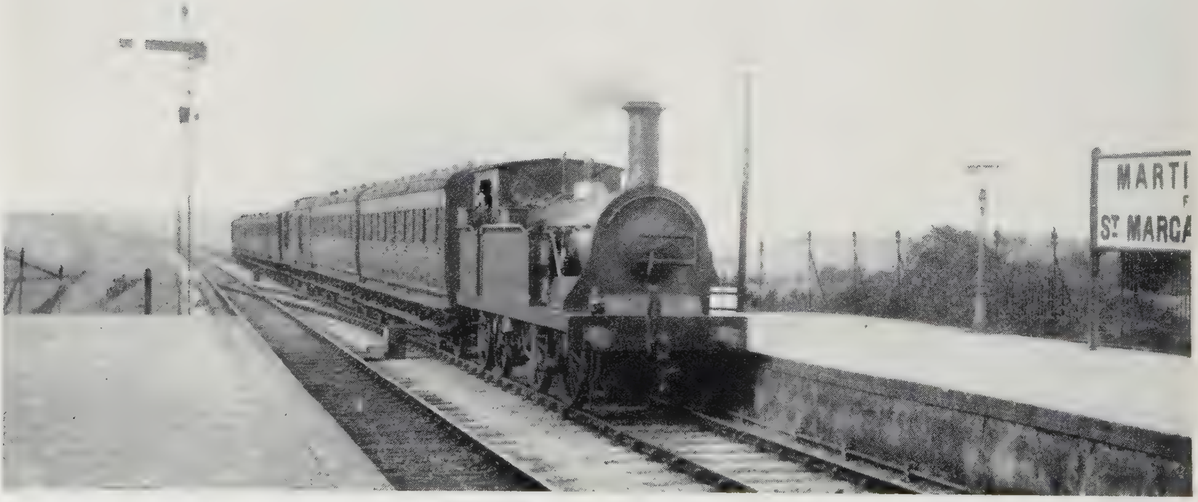


South Eastern & Chatham: H. S. Wainwright's second and (*below*) first express passenger classes in action. *Above* is a heavy relief Continental express, and *below*, once more, is the Hastings 'Car Train', into which a rather more ordinary brake-third carriage has insinuated itself. Both scenes are on the down approach to Orpington.

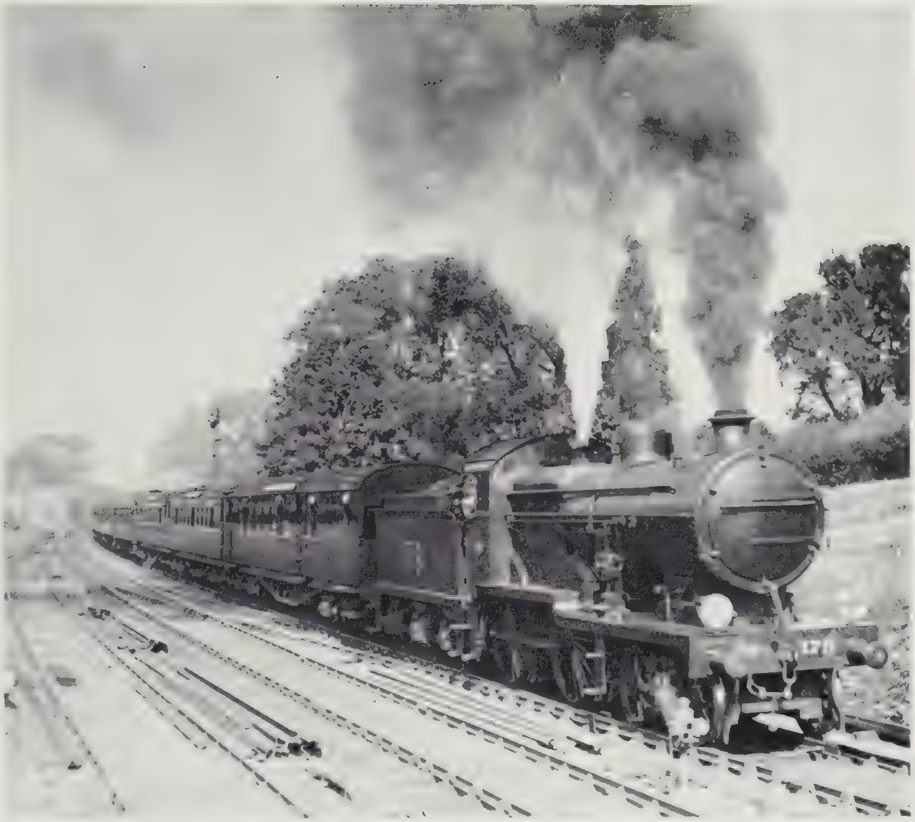


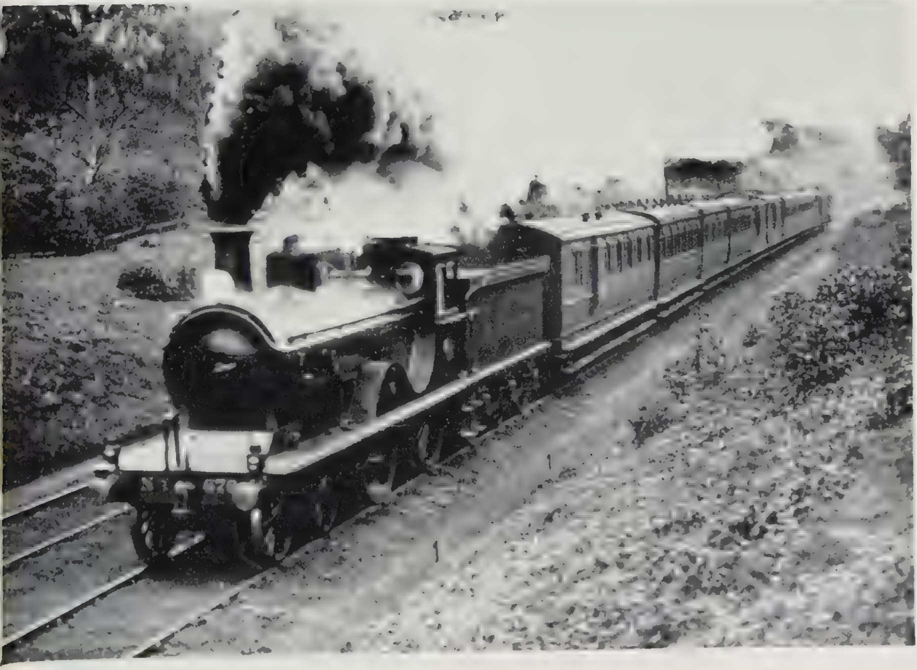


Down in the south-east corner. *Above:* An early Wainwright goods approaches Folkestone Junction from Martello Tunnel. Beyond the engine are typical South Eastern semaphores and, following her, a pair of the company's quaint double-ended passenger brakes. *Below:* One of James Stirling's South Eastern 0-4-4 tank engines of the 'eighties brings a procession of coaching variety into Martin Mill. The semaphore is a London, Chatham & Dover specimen, belonging to that company's Deal branch.



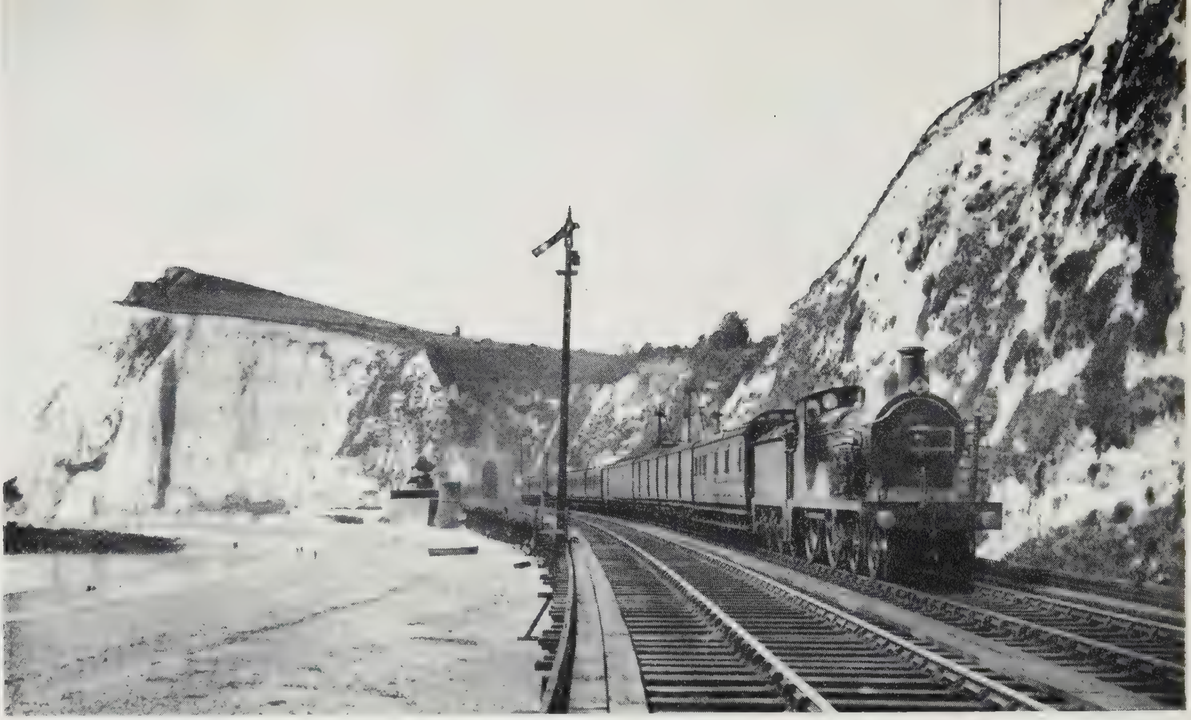
Last years of the South Eastern & Chatham. One of Wainwright's engines, rebuilt with a Maunsell boiler by Beyer Peacock, heads a Continental express of new and sumptuous vestibuled stock, followed by Pullman cars, about 1922. Colour styles are dowdy after the First German War.



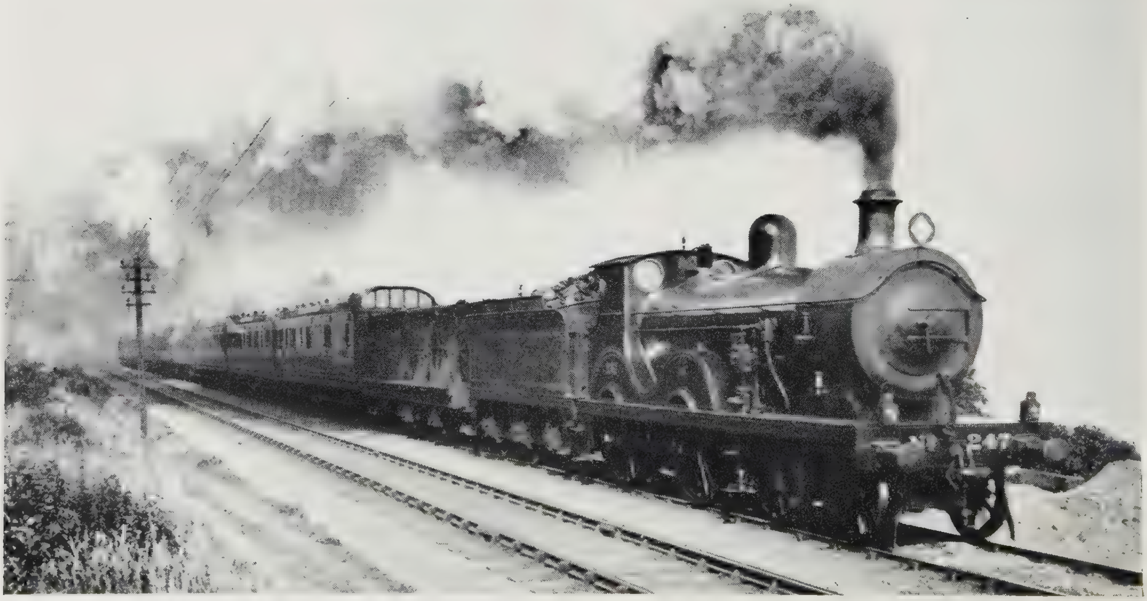


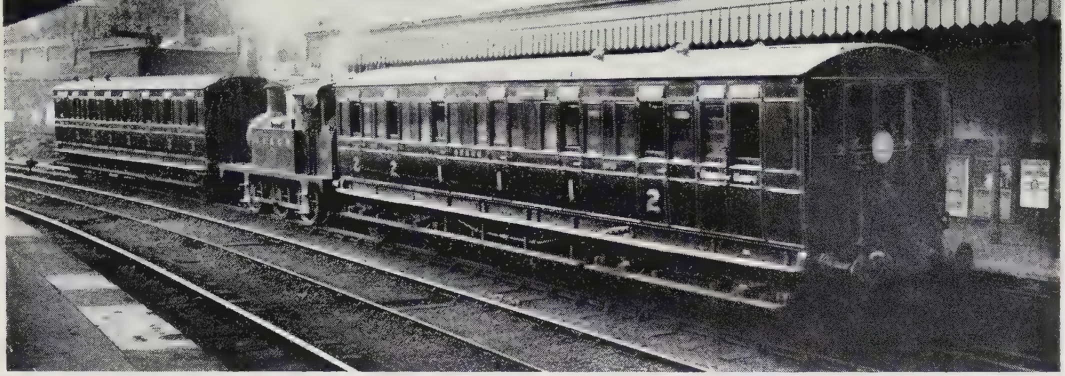
One of the Great North of Scotland type engines shouts her way up Sole Street bank with an up Ramsgate express. The leading brake third is London, Chatham & Dover; the following coaches are South Eastern.

[*H. Gordon Tidey*

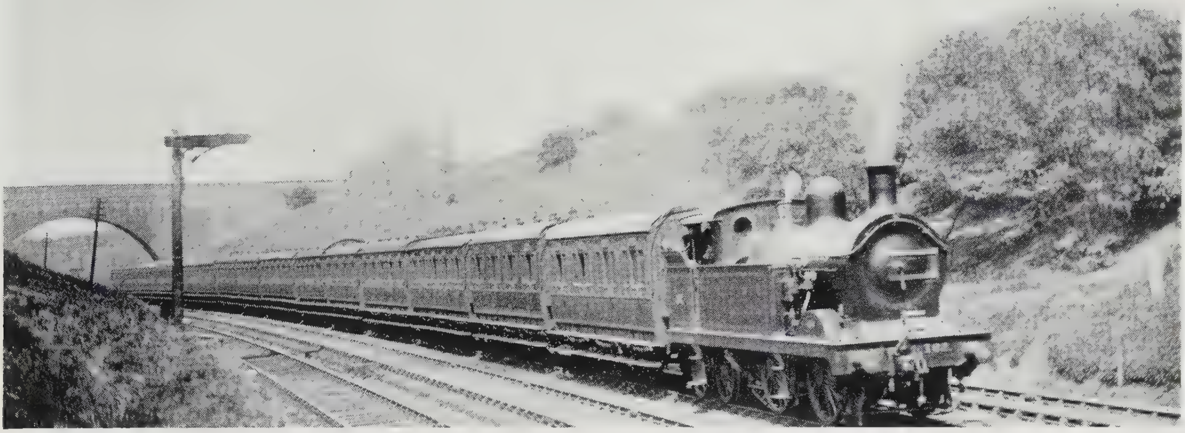


South Eastern Continentals again. *Above:* One passes along the old wooden bridge between Shakespeare Cliff Tunnel and Dover Marine. The array of Post Office carriages suggests the Indian Mail. *Below:* An up train accelerates through Folkestone Warren with, behind the tender, a container carriage for through-registered luggage. Both engines by Harry Wainwright; the lower one with a massively extended smokebox.

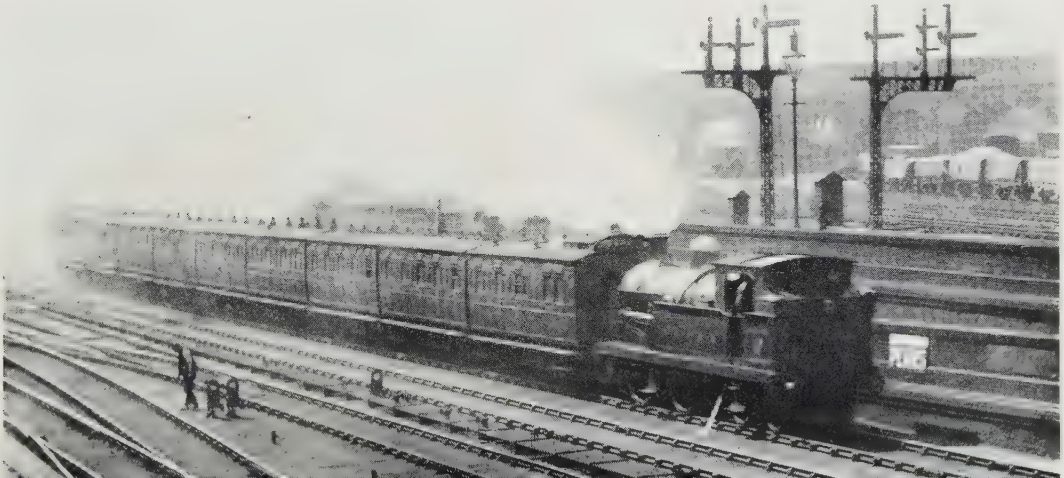


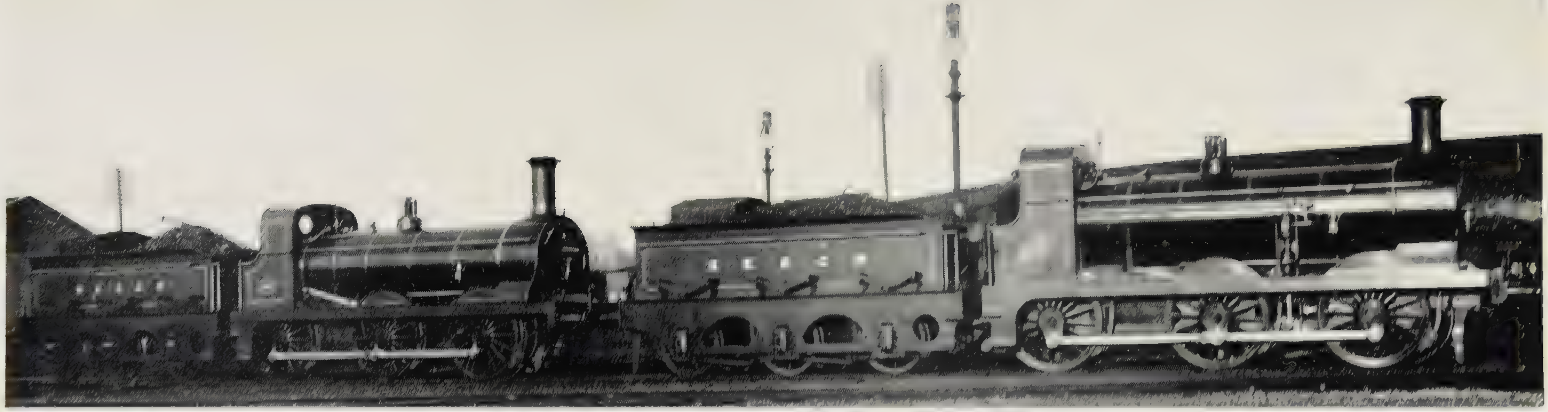


On the old Greenwich Park branch. One of Wainwright's little Class 'P' tank engines works a three-class pull-and-push train. The coaches are London, Chatham & Dover, modified for the job.

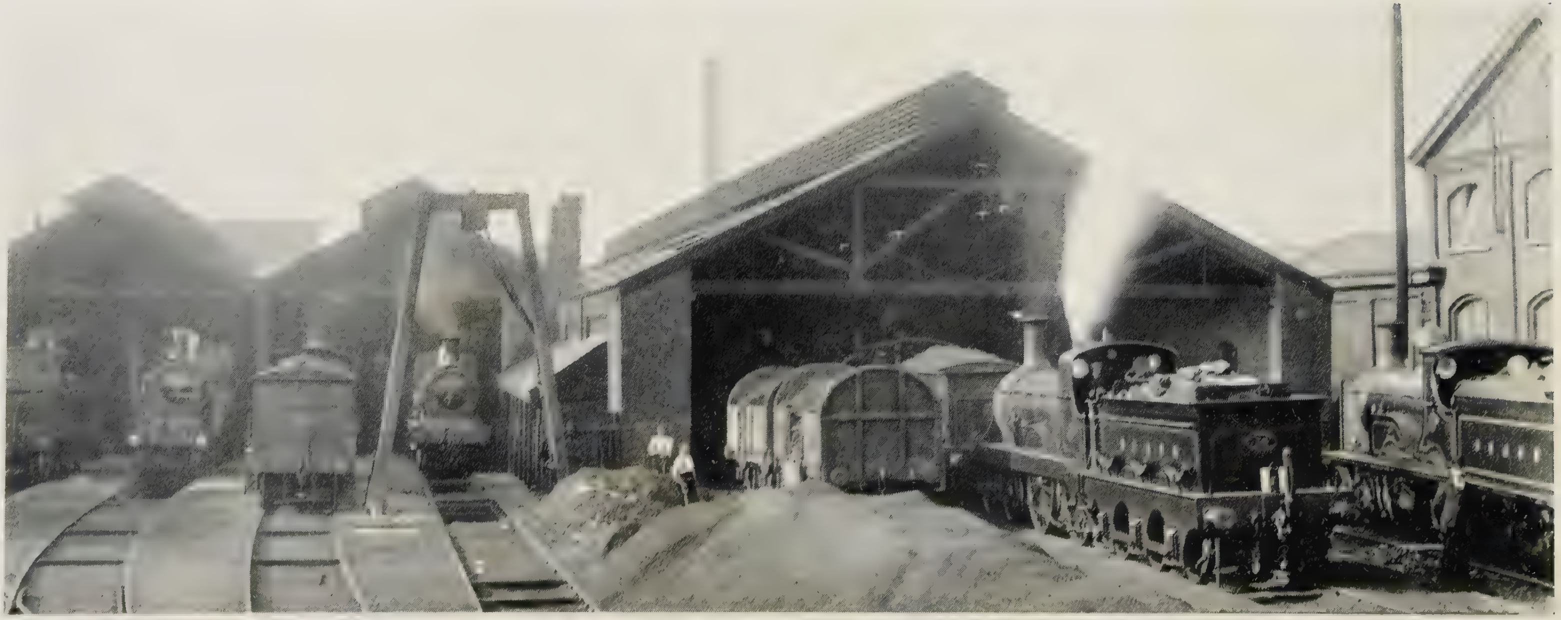


Above: A Wainwright Class 'H' tank engine brings fifteen assorted South Eastern four-wheelers up New Cross Bank on a summer evening. *Below:* Through suburban workings between London, Chatham & Dover and Great Northern were old, and survived the South Eastern & Chatham Working Agreement by some years. The condensing tank engine and the coaches are both from the Chatham. The scene is near Kings Cross. [*Above: H. Gordon Tidey*





Shed scenes on the South Eastern & Chatham. Above are two of James Stirling's Class 'O' goods engines, looking uncommonly spruce. On the extreme right of the lower view (Bricklayers Arms) is a rare juxtaposition. The engine blowing off is one of James Stirling's mixed traffic engines of 1879, long outlasted by his seven-footers. Beside her is one of William Kirtley's standard London, Chatham & Dover express engines. Beyond the heap of smokebox char are two of the old round-topped wagons, once to be seen on nearly every British railway.



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